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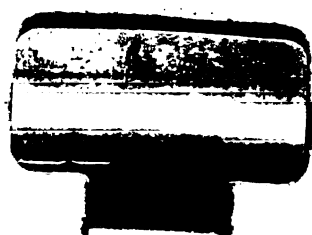
BOARD OF PUBLIC WORKS

SIXTY-THIRD ANNUAL REPORT
To the Governor of the State of Ohio

B 428032



FOR THE
YEAR ENDING NOVEMBER 15, 1901



SIXTY-THIRD ANNUAL REPORT

OF THE

BOARD OF PUBLIC WORKS

TO THE

Governor of the State of Ohio

FOR THE

Year Ending November 15, 1901.



COLUMBUS, O.:
FRED. J. HEER, STATE PRINTER
1902

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AUG 25 1901

OFFICE OF BOARD OF PUBLIC WORKS,

COLUMBUS, December, 1901.

To His Excellency, Geo. K. Nash, Governor of Ohio:

SIR: I have the honor to submit to you herewith the sixty-third annual report of the Board of Public Works.

W. G. JOHNSTON, -
President Board of Public Works.

SIXTY-THIRD ANNUAL REPORT OF THE BOARD OF PUBLIC WORKS.

The sixty-third annual report of the Board of Public Works of Ohio, for the fiscal year ending November 15, 1901, is herewith presented:

As required by law, the Board was re-organized on the second Tuesday of February last, at which time Hon. C. A. Goddard of Scioto county took his seat as member of the Board for a term of three years, having been re-elected at the election in November, 1901. Having given a bond in the sum of \$30,000 which was approved by the Governor and filed with the Treasurer of State, he was sworn in and assumed the duties of the office.

Hon. W. G. Johnston being the senior member was agreeable to a rule of the Board, elected President for the ensuing year.

MEMBERS OF THE BOARD.

Name.	Residence.	Expiration of term.
W. G. Johnston.....	Altman.....	Second Tuesday in February, 1902
Frank A. Huffman.....	Lima.....	" " 1903
Chas A. Goddard.....	Franklin Furnace...	" " 1904

The Public Works divided into three grand divisions, were assigned to the members as acting commissioners, respectively as follows:

To the Hon. W. G. Johnston — grand division No. 1 — embracing that portion of the Ohio canal extending from Cleveland to Muskingum slack-water at Dresden, including the six-mile remnant of the Walhonding canal (19 miles of which was abandoned by the act of the General Assembly, see House Bill, No. 508 passed April 27, 1896), making a total of 157 miles.

To Hon. Chas. A. Goddard — grand division No. 2 — embracing that portion of the Ohio canal extending from Dresden Junction to Portsmouth, including the Columbus Feeder, a distance of 169 miles. Also the State's reserved rights in Hocking canal.

To Hon. Frank A. Huffman — grand division No. 3 — all of the Miami and Erie canal extending from Cincinnati to Toledo, including the feeders and reservoirs.

ANNUAL REPORT

OFFICERS BY APPOINTMENT.

Chief Engineer, Chas. E. Perkins, Akron; appointed by the Governor; term expires May 22, 1902.

Assistant Engineer, Samuel Bachtell, Columbus; appointed by the board; term expires second Tuesday in February, 1902.

Secretary, S. G. McColloch, Portsmouth; appointed by the Board; term expires second Tuesday in February, 1902.

Clerk and stenographer, Miss Rebekah Sullivan, Columbus; appointed by the Board; term expires second Tuesday in February, 1902.

F. W. Schaub, Messenger, appointed by the Board; term expires second Tuesday in February, 1902.

SUPERINTENDENTS.

(Terms expire March 31, 1902.)

Name.	Location.	Yearly salary.
Wm. M. Hiltabidle.....	Akron	\$1,400 00
Chas. H. Geidel.....	Coshocton	1,400 00
F. C. Dietz.....	Zanesville	1,400 00
Geo. H. Watkins.....	Wakefield	1,400 00
Chas. Cooper.....	Reading	1,400 00
John O'Connor.....	Dayton	1,400 00
H. W. Meacham.....	Toledo	1,400 00

COLLECTORS OF MIAMI AND ERIE CANAL.

(Terms expire March 31, 1902.)

Name.	Location.	Yearly salary.
Chas. Wittich.....	Toledo	\$600 00
D. H. Hancock.....	Napoleon	400 00
H. W. Myers.....	Defiance	420 00
Jos. A. Claypool.....	Delphos	250 00
Guy Huffman.....	St. Mary's.....	500 00
Frank C. Davies.....	Piqua	300 00
E. Wombold.....	Dayton	600 00
T. H. Corson.....	Middletown	400 00
J. W. Sullivan.....	Lockland	550 00
W. A. Gregg.....	Cincinnati	1,000 00

BOARD OF PUBLIC WORKS.

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COLLECTORS OHIO CANAL.

Name.	Location.	Yearly salary.
Jas. M. Jones.....	Cleveland	\$900 00
J. H. Morrison.....	Akron	600 00
Mrs. Margaret S. Harvey.....	Canal Dover.....	450 00
David Atwater.....	Massillon	300 00
Edwin Burchfield.....	Roscoe	420 00
Jno. F. Poorman.....	Dresden	240 00
H. P. Courtier.....	Newark	180 00
O. B. Brandt.....	Carroll	200 00
Wm. Patton.....	Columbus	300 00
Nelson Wolfley.....	Circleville	250 00
A. H. Reutinger.....	Chillicothe	300 00
Jas. C. Voelker.....	Waverly	250 00
C. H. Barbee.....	Portsmouth	200 00

The collector at Roscoe serves on both the Ohio and Walhonding canal.

LOCK TENDERS.

MIAMI AND ERIE CANAL.

Name.	Location.	Monthly salary.
Geo. Maccabee.....	Toledo	\$25 00
John Allen.....	Miami	50 00
Samuel Charter.....	Maumee	25 00
Jos. Reynolds.....	Providence	20 00
R. R. Bortle.....	Texas	15 00
Stilman Rose.....	Independence	15 00
W. Koley.....	Defiance	25 00
H. V. Nisley.....	Schooley's Locks.....	5 00
E. Viall.....	Lock 32.....	5 00
U. C. Gabriel.....	Hipp's Locks.....	5 00
S. Galispie.....	Locks 29 and 30.....	5 00
*G. H. Otte.....	Ottoville	3 00
W. F. Smith.....	Delphos	35 00
Jno. Rose.....	Spencerville	10 00
James R. Byrun.....	Lock 14.....	5 00
W. Fosnight.....	St. Mary's Locks 7 and 11.....	30 00
S. Marshall.....	Bulkhead	12 00
James Kohn.....	Canal patrolman, Delphos.....	30 00
Wesley McDonald.....	Canal patrolman, St. Mary's.....	60 00
Wm. Thieman.....	New Bremen.....	25 00
Isaac Powell.....	Loramie Reservoir.....	10 00
Chas. Adams.....	Lockington	23 00
Eli Norviel.....	Lewistown Reservoir.....	10 00
Ben Hine.....	Port Jefferson.....	10 00
D. Gates.....	Sidney	3 00
Jno. Lithicum	Summit Level.....	3 00
J. H. Buchner.....	Piqua	10 00
Jas. Maly	Piqua	10 00
Geo. Dixon	Still House Lock.....	25 00

* Employed during navigation only.

LOCK TENDERS — Continued.
MIAMI AND ERIE CANALS — Concluded.

Name.	Location.	Monthly salary.
Jas. Hale	Troy	3 00
Louis Schaffer	Troy Feeder Lock	12 00
Chas. H. Lewis	Picayune Lock	10 00
Samuel Hunter	Three Locks	10 00
Jno. Wood	Dayton	25 00
R. Minich	Dayton Car Shops	3 00
Chas. Gray	Dayton Waste Gates	5 00
Philip Wentz	Snyder's Mill	10 00
Frank Grudish	Dryden's Lock	5 00
Simon Strader	Carrollton	20 00
Jno. Dreher	Miamisburg	10 00
J. C. Gebhart	Sunfish Lock	15 00
Michael Schafer	Franklin	10 00
Frank Dine	Middletown Feeder	40 00
Andy Barnickle	Middletown	10 00
Syl. Fleming	Amanda	18 00
Humphrey Campbell	Rockdale	10 00
J. N. Abbott	Hamilton	20 00
Jno. Messner	Rialto	10 00
J. W. Gorman	Crescentville	10 00
French Whitehead	Lockland	22 00
Chas. E. Alexander policeman	Cincinnati	65 00
¶ Theo. Reutinger	Port Union	2 50
¶ J. N. Abbott	Hamilton (South of)	2 50
Jacob Rupp	Woodsdale Island	2 50

¶ Flood-gate tender.

BOARD OF PUBLIC WORKS.

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LOCK TENDERS — Concluded.

OHIO CANAL.

Name.	Location.	Monthly salary.
Wm. Dickerson	Pinery Feeder.....	\$20 00
L. Seeley	Peninsula	20 00
Chas. Lewis	Everett	20 00
Hiram Wells	Portage Locks.....	20 00
Wm. Mahoney	Akron Lower Locks.....	25 00
Salem Woods	Akron Upper Locks.....	45 00
Ed. Williams	Clinton	20 00
Wm. A. Warner.....	Akron Reservoir.....	5 00
Holsey Eaches	Massillon	6 00
Jno. Bailes	Navarre	15 00
Wm. Hubblinger	Wolf Creek.....	5 00
Louis Young	Services at Summit Feeder.....	10 00
Chas. Climes	Services at Tuscarawas Feeder.....	5 00
Wm. Lovell	Trenton	20 00
Jonas Bury	Zoar	20 00
Wm. Smart	Adams' Mills	20 00
Benjamin Richards	Licking Reservoir	15 00
Jno. A. Spurgeon.....	Licking Feeder	25 00
Levi Wagner	Baltimore	15 00
Jno. Benadum	Lockville	15 00
Wm. Vallett	Lockbourne	25 00
Henry Wells	Millport	10 00
Wm. Paster	Circleville	15 00
Geo. Rettig	Circleville Dam.....	15 00
M. Renner	Chillicothe	15 00
Willis Hughes	Three Locks.....	15 00
E. W. McMillan.....	Higby's	15 00
Hugh Scott	Waverly	10 00
F. M. Temple.....	Union Mills.....	20 00

In presenting this our thirty-third annual report to your Excellency we would respectfully call special attention to the full and exhaustive report of the Chief Engineer of the Public Works of Ohio, in relation to the water ways of the State, their present condition physically and financially, together with recommendations for the improvement of the same.

The Chief Engineer has devoted considerable time and research to the subject of inland transportation not only in the United States but in foreign countries as well and the results of his investigations are worthy of consideration. We fully agree with him in the opinion that the canals of the State should be maintained and preserved, that sufficient money should be appropriated by the General Assembly annually for this purpose, awaiting the developments of the not distant future, that any movement looking to the sale or abandonment of the canals of the state at this time would be taking a step backward in the material and commercial interests, and the future prosperity and growth of the State at large.

We also call attention to the financial statement of the secretary which accompanies our report showing the receipts and expenditures in detail incident to the repairs and maintenance of the several canals of the State during the past fiscal year.

Although laboring under adverse circumstances we have endeavored to administer and discharge the duties devolving on us faithfully, conscientiously and economically, and for the best interests of the State and in our efforts so to do we take pleasure in saying that we have had the hearty cooperation and assistance of the Chief Engineer, his assistant, the secretary, clerk, superintendents and the subordinate officers generally.

We have the honor to be

Very respectfully, your obedient servants,

W. G. JOHNSTON,

President and Acting Commissioner, Northern Division, Ohio Canal.

FRANK A. HUFFMAN,

Acting Commissioner, Miami and Erie Canal.

CHAS. A. GODDARD,

Acting Commissioner, Southern Division, Ohio Canal.

REPORT OF THE SECRETARY.

To the Honorable the Board of Public Works of Ohio:

GENTLEMEN — I have the honor to present herewith my report of the receipts and expenditures of your Honorable Board during the fiscal year ending on the 15th day of November, 1901.

FINANCIAL STATEMENT, BOARD OF PUBLIC WORKS.

RECEIPTS.

The amount of revenue from the public works of Ohio for the fiscal year ending November 15, 1901, is given in the following tables:

MIAM AND ERIE CANAL.

Offices.	Tolls.	Rents.	Total.
Cincinnati	\$4,178 79	\$20,442 40	\$24,621 19
Lockland	2,915 95	172 00	3,087 95
Middletown	1,329 37	3,533 12	4,862 49
Dayton	438 04	4,532 75	4,970 79
Piqua	474 85	4,058 41	4,533 26
St. Mary's	90 20	12,643 53	12,733 73
Delphos	527 37	2,074 76	2,602 13
Defiance	1,686 18	442 02	2,078 20
Napoleon	897 14	1,208 84	2,105 98
Toledo	372 26	4,126 62	4,498 88
Total rents and tolls.....	\$12,860 15	\$53,234 45	\$66,094 60
From sale of land.....			1,086 00
Total from all sources.....			\$67,180 60

OHIO CANAL — NORTHERN DIVISION.

Offices.	Tolls.	Rents.	Total.
Cleveland	\$1,202 02	\$1,793 08	\$2,995 10
Akron	992 93	4,540 30	5,533 23
Massillon	902 82	316 10	1,218 92
Canal Dover	1,442 82	604 68	2,047 50
*Roscoe	65 43	2,097 39	2,162 82
Dresden		980 22	980 22
Total rents and tolls.....	\$4,606 02	\$10,331 77	\$14,937 79
From sale of land.....			250 00
Total from all sources.....			\$15,187 79

*Including receipts on Wallhonding canal.

OHIO CANAL — SOUTHERN DIVISION.

Offices.	Tolls.	Rents.	Total.
Newark	\$5 00	\$1,259 16	\$1,264 16
Carroll		442 42	442 42
Columbus	5 25	1,199 00	1,204 25
Circleville	20 41	412 37	432 78
Chillicothe	398 62	297 25	695 87
Waverly	69 67	916 11	985 78
Portsmouth		10 37	10 37
Total rents and tolls.....	\$498 95	\$4,536 68	\$5,035 63
Total from all sources.....			\$5,035 63

RECAPITULATION.

CANALS.

Canals.	Land sold.	Tolls.	Rents.	Total.
Miami and Erie.....	\$1,086 00	\$12,860 15	\$53,234 45	\$67,180 60
No. Division Ohio.....	250 00	4,606 02	10,331 77	15,187 79
So. Div. Ohio.....		498 95	4,536 68	5,035 63
Total	\$1,336 00	\$17,965 12	\$68,102 90	\$87,404 02

Amount of collections for fiscal year ending November 15, 1901.....	\$87,404 02
Add amount due from collectors on November 15, 1900.....	2,643 46
	\$90,047 48
Deduct amount due from collectors on November 15, 1901.....	3,030 54
	\$87,016 94
Add balance in treasury on November 15, 1900.....	39,148 95
	\$126,165 89
General appropriations	82,000 00
Special appropriation for permanent improvement of Miami and Erie canal between Cincinnati and Dayton.....	50,000 00
Special appropriation for dredging Miami and Erie canal between Cincinnati and Dayton.....	15,000 00
Total to be accounted for.....	\$273,165 89

DISBURSEMENTS.

The President of the Board, and the acting commissioners of the three Grand Divisions of the Public Works, issued to the several superintendents and others, on account of the maintenance and repairs, salaries, etc., checks or requisitions upon the Auditor of State, in amounts exhibited in the tables found below, and which are accounted for by the itemized bills filed in the office of the Board of Public Works, copies of which are incorporated in this annual report under the head of "Abstract of money paid out," showing to whom, for what, and from which fund accounts were paid.

CHECKS ISSUED BY W. G. JOHNSTON ON ACCOUNT OF NORTHERN DIVISION
OHIO CANAL.

Date.	To whom issued.	Name of appropriation.	Amount.
1900.			
Dec. 11	Wm. M. Hiltabidle.....	Northern Division Ohio Canal...	\$1,487 44
11	Chas. H. Geidel.....	" " " "	730 12
1901.			
Jan. 8	Wm. M. Hiltabidle.....	" " " "	1,230 80
8	Chas. H. Geidel.....	" " " "	549 12
Feb. 12	Wm. M. Hiltabidle.....	" " " "	267 42
12	Wm. M. Hiltabidle.....	" " " "	15 76
12	Wm. M. Hiltabidle.....	Peninsula aqueduct, etc.	1,247 98
12	Chas. H. Geidel.....	Northern Division Ohio Canal...	267 42
Mar. 12	Wm. M. Hiltabidle.....	" " " "	2,801 56
12	Chas. H. Geidel.....	" " " "	1,496 28
April 9	Wm. M. Hiltabidle.....	" " " "	3,415 98
9	Chas. H. Geidel.....	" " " "	877 42
May 14	Wm. M. Hiltabidle.....	" " " "	3,163 78
14	Chas. H. Geidel.....	" " " "	1,733 24
June 11	Wm. M. Hiltabidle.....	" " " "	3,968 22
11	Chas. H. Geidel.....	" " " "	1,712 24
Aug. 13	Wm. M. Hiltabidle.....	" " " "	2,970 68
13	Chas. H. Geidel.....	" " " "	1,836 61
Sept. 10	Wm. M. Hiltabidle.....	" " " "	1,450 00
10	Chas. H. Geidel.....	" " " "	1,517 25
Oct. 8	Wm. M. Hiltabidle.....	" " " "	700 00
8	Chas. H. Geidel.....	" " " "	200 00
Nov. 12	Wm. M. Hiltabidle.....	" " " "	1,400 00
12	Chas. H. Geidel.....	" " " "	500 00
	Total		\$40,794 10

RECAPITULATION.

Wm. M. Hiltabidle, general appropriation Northern Division Ohio Canal	\$26,266 62
Chas. H. Geidel, general appropriation Northern District Division Ohio Canal	13,263 74
Wm. M. Hiltabidle, deficiency appropriation Peninsula Aqueduct, etc.	1,247 98
Wm. M. Hiltabidle, deficiency appropriation, general repairs to No. Div. Ohio Canal	15 76
Total	\$40,794 10

CHECKS ISSUED BY CHAS. A. GODDARD ON ACCOUNT OF SOUTHERN DIVISION
OHIO CANAL.

Date.	To whom issued.	Name of appropriation.	Amount.
1900.			
Dec. 11	F. C. Dietz.....	Southern Division Ohio Canal....	\$834 43
11	Geo. H. Watkins.....	" " " " " " " " " " " "	1,274 55
	J. E. Swisher.....	Damage claim and cost.....	92 00
	John Ward.....	Costs in J. E. Swisher claim.....	12 96
	Thos. M. Clark.....	" " " " " " " " " " " "	8 70
	W. T. Rees.....	" " " " " " " " " " " "	8 16
1901.			
Jan. 8	F. C. Dietz.....	Southern Division Ohio Canal....	518 13
	Geo. H. Watkins.....	" " " " " " " " " " " "	1,600 34
Feb. 12	F. C. Dietz.....	" " " " " " " " " " " "	499 62
	Geo. H. Watkins.....	" " " " " " " " " " " "	1,459 49
Mch. 12	F. C. Dietz.....	" " " " " " " " " " " "	712 37
	Geo. H. Watkins.....	" " " " " " " " " " " "	1,246 54
April 9	F. C. Dietz.....	" " " " " " " " " " " "	588 22
	Geo. H. Watkins.....	" " " " " " " " " " " "	1,744 63
May 14	F. C. Dietz.....	" " " " " " " " " " " "	930 93
	Geo. H. Watkins.....	" " " " " " " " " " " "	2,675 15
June 11	F. C. Dietz.....	" " " " " " " " " " " "	1,201 35
	Geo. H. Watkins.....	" " " " " " " " " " " "	2,548 11
July 9	F. C. Dietz.....	" " " " " " " " " " " "	1,267 93
	Geo. H. Watkins.....	" " " " " " " " " " " "	2,352 32
Aug. 13	F. C. Dietz.....	" " " " " " " " " " " "	1,274 31
	Geo. H. Watkins.....	" " " " " " " " " " " "	2,250 82
Sept. 10	F. C. Dietz.....	" " " " " " " " " " " "	1,569 62
	Geo. F. Watkins.....	" " " " " " " " " " " "	2,972 95
Oct. 8	F. C. Dietz.....	" " " " " " " " " " " "	1,583 32
	Geo. H. Watkins.....	" " " " " " " " " " " "	2,449 79
Nov. 12	F. C. Dietz.....	" " " " " " " " " " " "	1,693 04
	Geo. H. Watkins.....	" " " " " " " " " " " "	2,362 50
	Total .....	.....	\$37,732 33

RECAPITULATION.

F. C. Dietz, Southern Division Ohio Canal.....	\$12,673 32
Geo. H. Watkins, Southern Division Ohio Canal.....	24,937 19
J. E. Swisher, for damage claim and costs.....	92 00
James Ward, costs in J. E. Swisher case.....	12 96
Thos. M. Clark, costs in J. E. Swisher case.....	8 70
W. T. Rees, costs in J. E. Swisher case.....	8 16
Total	\$37,732 33

CHECKS ISSUED BY FRANK A. HUFFMAN ON ACCOUNT OF MIAMI AND ERIE CANAL
DURING THE YEAR ENDING NOVEMBER 15, 1901.

Date.	To whom issued.	Name of appropriation.	Amount.
1900.			
Dec. 11	Chas. Cooper.....	Miami and Erie Canal.....	\$1,187 00
	John O'Connor.....	" "	2,620 00
	H. W. Meacham.....	" "	2,628 00
	Chas. T. Hayman.....	" "	2,088 48
1901.			
Jan. 8	Chas. Cooper.....	" "	1,125 00
	John O'Connor.....	" "	1,075 00
	H. W. Meacham.....	" "	1,150 00
Feb. 12	Chas. Cooper.....	" "	975 00
	John O'Connor.....	" "	1,080 00
	H. W. Meacham.....	" "	1,285 00
	Enquirer Company.....	Adver. dredging M. & E. Canal...	12 50
	Commercial Tribune Co.	" "	13 75
	Cin'ti Times Star Co.....	" "	15 00
Mar. 12	Chas. Cooper.....	Miami and Erie Canal.....	513 00
	John O'Connor.....	" "	513 00
	H. W. Meacham.....	" "	700 00
April 9	Chas. Cooper.....	" "	1,648 96
	Chas. Cooper.....	Perm. Imp. M. & E. Canal.....	5,154 84
	John O'Connor.....	Miami and Erie Canal.....	1,391 31
	H. W. Meacham.....	" "	2,061 20
May 14	Chas. Cooper.....	" "	3,455 42
	John O'Connor.....	" "	2,902 32
	H. W. Meacham.....	" "	3,789 14
	Chas. Cooper.....	Perm. Imp. M. & E. Canal.....	5,316 56
June 11	Chas. Cooper.....	Miami and Erie Canal.....	2,592 50
	John O'Connor.....	" "	2,135 00
	H. W. Meacham.....	" "	3,050 00
	Chas. Cooper.....	Perm. Imp. M. & E. Canal.....	5,026 00
July 9	Chas. Cooper.....	Miami and Erie Canal.....	1,475 76
	John O'Connor.....	" "	1,162 72
	H. W. Meacham.....	" "	1,520 48
	Chas. Cooper.....	Perm. Imp. M. & E. Canal.....	6,228 75
	H. W. Meacham.....	Rebldg. Prov. and Ind. Dams....	590 16
Aug. 13	Chas. Cooper.....	Miami and Erie Canal.....	1,613 35
	John O'Connor.....	" "	1,416 60
	H. W. Meacham.....	" "	1,613 35
	H. W. Meacham.....	Rebldg. Prov. and Ind. Dams....	4,087 12
22	Chas. Cooper.....	Dredging M. & E. Canal between Cincinnati and Dayton.....	1,685 33
	Chas. Cooper.....	Perm. Imp. M. & E. Canal.....	8,235 55
	King Bridge Co.....	" "	5,186 00
Sept. 10	Chas. Cooper.....	Miami and Erie Canal.....	821 10
	John O'Connor.....	" "	664 70
	H. W. Meacham.....	" "	997 05
	H. W. Meacham.....	Rebldg. Prov. and Ind. Dam....	2,409 94
	Chas. Cooper.....	Dredging M. & E. Canal between Cincinnati and Dayton.....	1,489 19
	Chas. Cooper.....	Perm. Imp. M. & E. Canal.....	6,192 70
Oct. 8	Chas. Cooper.....	Miami and Erie Canal.....	2,286 90
	John O'Connor.....	" "	1,871 10
	H. W. Meacham.....	" "	2,328 48
	H. W. Meacham.....	Rebldg. Prov. and Ind. Dams....	1,218 24
	Chas. Cooper.....	Perm. Imp. M. & E. Canal.....	2,244 98
	Chas. Cooper.....	Dredging M. & E. Canal between Cincinnati and Dayton.....	2,116 27

CHECKS ISSUED BY FRANK A. HUFFMAH, ETC.—Concluded.

Date.	To whom issued.	Name of appropriation.	Amount.
1901. Nov. 12	Chas. Cooper.....	Miami and Erie Canal.....	3,944 87
	John O'Connor.....	" ".....	2,455 46
	H. W. Meacham.....	" ".....	3,168 93
	Chas. Cooper.....	Dredging M. & E. Canal between Cincinnati and Dayton.....	1,123 85
	Chas. Cooper.....	Perm. Imp. M. & E. Canal.....	8,521 18
	H. W. Meacham.....	Rebldg. Prov. and Ind. Dam....	3,591 38
	Total		137,715 47

RECAPITULATION.

Chas. Cooper	\$74,974 06
John O'Connor	19,287 21
H. W. Meacham	36,188 47
Chas. T. Hayman	2,088 48
Cincinnati Enquirer Co., advertising.....	12 50
King Bridge Co., improvement M. & E. Canal.....	5,136 00
The Commercial Tribune Co., advertising.....	13 75
The Cincinnati Times-Star Co., advertising.....	15 00
Total	\$137,715 47

CHECKS ISSUED BY THE PRESIDENT OF THE BOARD OF PUBLIC WORKS ON THE FUNDS
ANNUALLY APPROPRIATED FOR THE PAYMENT OF OFFICERS' SALARIES AND CON-
TINGENT EXPENSES, ETC., ETC.

Date.	To whom issued.	Name of appropriation.	Amount.
1900. Dec. 11	W. G. Johnson.....	Member's traveling expenses.....	\$50 00
	C. A. Goddard.....	".....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	Member's salaries.....	66 66
	W. G. Johnson.....	".....	66 66
	F. A. Huffman.....	".....	66 66
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Saml. Bachtell.....	".....	133 33
	W. T. McLean.....	Secretary's salary.....	125 00
	R. Sullivant.....	Clerk's salary.....	58 33
	F. W. Schaub.....	Contingent expenses.....	20 00
	W. T. McLean.....	".....	12 00
	W. Union Telegraph Co..	".....	6 33
	Lanning Printing Co....	".....	1 00
	Eureka Blotter Bath Co.	".....	4 85
1901. Jan. 8	C. A. Goddard.....	Member's salaries.....	66 66
	W. G. Johnston.....	".....	66 66
	F. A. Huffman.....	".....	66 66

CHECKS ISSUED BY THE PRESIDENT, ETC. — Continued.

Date.	To whom issued.	Name of appropriation.	Amount.
1901.	C. A. Goddard.....	Member's traveling expenses.....	50 00
	W. G. Johnston.....	".....	50 00
	F. A. Huffman.....	".....	50 00
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Samuel Bachtell.....	".....	133 33
	W. T. McLean.....	Secretary's salary.....	125 00
	R. Sullivant.....	Clerk's salary.....	58 33
	F. W. Schaub.....	Contingent expenses.....	20 00
	W. T. McLean.....	".....	29 00
	Postal Tel. Co.....	".....	30
Feb. 12	C. A. Goddard.....	Member's traveling expenses.....	50 00
	W. G. Johnston.....	".....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	Member's salaries.....	66 68
	W. G. Johnston.....	".....	66 68
	F. A. Huffman.....	".....	66 68
	Chas. E. Perkins.....	Engineer's salary.....	166 68
	Samuel Bachtell.....	".....	133 34
	W. T. McLean.....	Secretary's salary.....	125 00
	R. Sullivant.....	Clerk's salary.....	58 34
	F. W. Schaub.....	Contingent expenses.....	25 00
	W. T. McLean.....	".....	12 00
	Central Un. Tel. Co.....	".....	7 50
	Remington Typewrit. Co.....	".....	4 38
	Fred A. Tibbetts.....	".....	60
	U. S. Express Co.....	".....	1 25
	C. F. DeLong.....	".....	50
	American Express Co.....	".....	50
Mch. 12	W. G. Johnston.....	Member's traveling expenses.....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	".....	50 00
	W. G. Johnston.....	Member's salaries.....	66 66
	F. A. Huffman.....	".....	66 66
	C. A. Goddard.....	".....	66 66
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Samuel Bachtell.....	".....	133 33
	W. T. McLean.....	Secretary's salary.....	125 00
	R. Sullivant.....	Clerk's salary.....	58 33
	F. W. Schaub.....	Contingent expenses.....	25 00
	W. T. McLean.....	".....	15 50
	Western Union Tel. Co.....	".....	10
April 9	W. G. Johnston.....	Member's traveling expenses.....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	Member's traveling expenses.....	50 00
	W. G. Johnston.....	Member's salaries.....	66 66
	F. A. Huffman.....	".....	66 66
	C. A. Goddard.....	".....	66 66
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Samuel Bachtell.....	".....	133 33
	W. T. McLean.....	Secretary's salary.....	62 50
	S. G. McColloch.....	".....	62 50
	R. Sullivant.....	Clerk's salary.....	58 33
	F. W. Schaub.....	Contingent expenses.....	20 00
	S. G. McColloch.....	".....	12 00
	U. S. Express Co.....	".....	25
	Central Un. Tel. Co.....	".....	8 85
	C. F. DeLong.....	".....	1 00
	Crystal Ice Mnfg. Co.....	".....	17 00

CHECKS ISSUED BY THE PRESIDENT, ETC. — Continued.

Date.	To whom issued.	Name of appropriation.	Amount.
1901.			
May 14	W. G. Johnston.....	Member's traveling expenses.....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	".....	50 00
	W. G. Johnston.....	Member's salaries.....	66 66
	F. A. Huffman.....	".....	66 66
	C. A. Goddard.....	".....	66 66
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Samuel Bachtell.....	".....	133 33
	S. G. McColloch.....	Secretary's salary.....	125 00
	R. Sullivant.....	Clerk's salary.....	58 33
	F. W. Schaub.....	Contingent expenses.....	20 00
	S. G. McColloch.....	".....	12 00
	American Expres Co....	".....	55
	Cent. Un. Tel. Co.....	".....	2 25
	Cherinton P. & E. Co..	".....	1 80
	The C. Bensinger Co....	".....	1 00
	C. F. DeLong.....	".....	2 00
	The Carter Ink Co.....	".....	1 00
June 11	W. G. Johnston.....	Member's traveling expenses.....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	".....	50 00
	W. G. Johnston.....	Member's salaries.....	66 66
	F. A. Huffman.....	".....	66 66
	C. A. Goddard.....	".....	66 66
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Samuel Bachtell.....	".....	133 33
	S. G. McColloch.....	Secretary's salary.....	125 00
	R. Sullivant.....	Clerk's salary.....	58 33
	F. W. Schaub.....	Contingent expenses.....	20 00
	S. G. McColloch.....	".....	12 00
July 9	W. G. Johnston.....	Member's traveling expenses.....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	".....	50 00
	W. G. Johnston.....	Member's salaries.....	66 66
	F. A. Huffman.....	".....	66 66
	C. A. Goddard.....	".....	66 66
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Samuel Bachtell.....	".....	133 33
	S. G. McColloch.....	Secretary's salary.....	125 00
	R. Sullivant.....	Clerk's salary.....	58 33
	S. G. McColloch.....	Contingent expenses.....	14 00
	F. W. Schaub.....	".....	25 00
Aug. 13	W. G. Johnston.....	Member's traveling expenses.....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	".....	50 00
	W. G. Johnston.....	Member's salaries.....	66 66
	F. A. Huffman.....	".....	66 66
	C. A. Goddard.....	".....	66 66
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Samuel Bachtell.....	".....	133 33
	A. G. McColloch.....	Secretary's salary.....	125 00
	R. Sullivant.....	Clerk's salary.....	58 33
	F. W. Schaub.....	Contingent expenses.....	20 00
	S. G. McColloch.....	".....	12 00
	U. S. Express Co.....	".....	35
	American Express Co....	".....	85
	Cent. Un. Tel. Co.....	".....	2 50
	Crystal Ice Co.....	".....	1 40

CHECKS ISSUED BY THE PRESIDENT, ETC. — Concluded.

Date.	To whom issued.	Name of appropriation.	Amount.
1901.			
Sept. 10	W. G. Johnston.....	Member's traveling expenses.....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	".....	50 00
	W. G. Johnston.....	Member's salaries.....	66 66
	F. A. Huffman.....	".....	66 66
	C. A. Goddard.....	".....	66 66
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Samuel Bachtell.....	".....	133 33
	S. G. McColloch.....	Secretary's salary.....	125 00
	R. Sullivan.....	Clerk's salary.....	58 33
	F. W. Schaub.....	Contingent expenses.....	20 00
	S. G. McColloch.....	".....	12 00
	Cent. Un. Tel. Co.....	".....	2 50
	American Express Co.....	".....	30
	Adams Express Co.....	".....	85
	U. S. Express Co.....	".....	25
Oct. 8	W. G. Johnston.....	Member's salaries.....	66 66
	F. A. Huffman.....	".....	66 66
	C. A. Goddard.....	".....	66 66
	W. G. Johnston.....	Member's traveling expenses.....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	".....	50 00
	Chas. E. Perkins.....	Engineer's salary.....	166 66
	Samuel Bachtell.....	".....	133 33
	S. G. McColloch.....	Secretary's salary.....	125 00
	R. Sullivan.....	Clerk's salary.....	58 33
	F. W. Schaub.....	Contingent expenses.....	25 00
	S. G. McColloch.....	".....	14 00
	Harvey Armstrong.....	".....	28 20
	Krauss, B & B. Co.....	".....	9 25
	Hall-Collins Hdw. Co.....	".....	30
	J. M. & W. Westwater..	".....	7 50
	Cent. Un. Tel. Co.....	".....	5 75
	M. D. Griffin.....	".....	1 50
Nov. 12	W. G. Johnston.....	Member's salary.....	66 72
	F. A. Huffman.....	".....	66 72
	C. A. Goddard.....	".....	66 72
	W. G. Johnston.....	Member's traveling expenses.....	50 00
	F. A. Huffman.....	".....	50 00
	C. A. Goddard.....	".....	50 00
	Chas. E. Perkins.....	Engineer's salary.....	166 72
	Samuel Bachtell.....	".....	133 36
	S. G. McColloch.....	Secretary's salary.....	125 00
	R. Sullivan.....	Clerk's salary.....	58 36
	F. W. Schaub.....	Contingent expenses.....	30 00
	S. G. McColloch.....	".....	12 00
	C. F. DeLong.....	".....	4 00
	Citizens' Telephone Co..	".....	8 71
	Total .....	.....	\$10,575 72

RECAPITULATION.

To whom paid.	Name of appropriation.	Amount.
W. G. Johnston.....	Member's salary.....	\$800 00
W. G. Johnston.....	Member's traveling expenses.....	600 00
Frank A. Huffman.....	Member's salary.....	800 00
Frank A. Huffman.....	Member's traveling expenses.....	600 00
Chas. A. Goddard.....	Member's salary.....	800 00
Chas. A. Goddard.....	Member's traveling expenses.....	600 00
Chas. E. Perkins.....	Engineer's salary.....	2,000 00
Samuel Bachtell.....	Engineer's salary.....	1,600 00
W. T. McLean.....	Secretary's salary.....	562 50
S. G. McColloch.....	Secretary's salary.....	937 50
R. Sullivan.....	Clerk's salary.....	700 00
F. W. Schaub.....	Contingent expenses.....	270 00
W. T. McLean.....	".....	68 50
S. G. McColloch.....	".....	100 00
Western Union Telegraph Co.....	".....	6 48
Lanning Printing Co.....	".....	1 00
Eureka Blotter Bath Co.....	".....	4 85
Postal Telegraph Co.....	".....	30
Remington Typewriter Co.....	".....	4 38
Fred A. Tibbitts.....	".....	60
The Cherington P. & E. Co.....	".....	1 80
The C. Bensinger Co.....	".....	1 00
The Carter Ink Co.....	".....	1 00
Harvey Armstrong.....	".....	28 20
The Krauss, Butler & Benham Co..	".....	9 25
The Hall-Collins Hardware Co.....	".....	30
J. M. & W. Westwater.....	".....	7 50
M. D. Griffin.....	".....	1 50
U. S. Express Co.....	".....	2 10
American Express Co.....	".....	2 20
Adams Express Co.....	".....	85
Central Union Telephone Co.....	".....	29 35
C. F. DeLong.....	".....	7 50
Crystal Ice Mnfg. Co.....	".....	18 40
Citizens' Telephone Co.....	".....	8 71
Total .....	.....	\$10,575 72

The foregoing checks are charged to the following accounts, viz:

What fund.	Amount.
Canal repairs, etc. (special appropriations).....	\$216,241 90
Members' salaries	2,400 00
Members' traveling expenses.....	1,800 00
Engineer's salary	3,600 00
Secretary's salary	1,500 00
Clerk's salary	700 00
Contingent expenses	575 72
Total	\$226,817 62
Balance on hand November 15, 1901.....	46,348 27
Grand total	\$273,165 89

The balance in treasury, \$46,348.27, belongs to the following funds, viz:

What fund.	Amount.
Canal repairs (includes special appropriations).....	\$43,775 11
Members' salaries	604 00
Members' traveling expenses.....	450 00
Engineer's salary	900 00
Secretary's salary	375 00
Clerk's salary	175 00
Contingent expenses	69 16
Total	\$46,348 27

CONDENSED STATISTICS.

The act to provide for internal improvements by navigable canals was passed by the General Assembly of Ohio, on February 4, 1825.

GRANTS OF LAND.

The following statement of lands granted to the State by the General Government, to aid in the construction of navigable canals, was taken from the commissioner's report to the general land office of 1854, and is deemed correct:

Miami and Dayton canal, 421,397.72 acres; Wabash and Erie, 292,688.33 acres, and 500,000 acres for general canal purposes to be selected by the Governor.

The total number of acres, 1, 214,086.05 excepting about 32,000 acres for reservoir purposes, were sold for about \$2,200,000. In addition to these grants by the General Government, the State received material aid from private individuals and corporations along the different canals in donations of land, right of way and money, but just to what amount we are unable to find from the papers and books in the office of the Board of Public Works.

OHIO CANAL.

The Ohio canal was commenced in 1825, and completed in 1833, extending from Lake Erie, at Cleveland, to the Ohio river at Portsmouth, a distance of 309 miles, with 25 miles of feeders, or a total of 334 miles and reservoirs. Cost for construction, \$4,695,203.69. The minimum breadth of this canal at water line is 40 feet; at bottom, 26 feet; and the depth, 4 feet. The number of lift-locks on this canal is 152; number of guard-locks, 9.

MIAMI AND ERIE CANAL.

The main canal, extending from the Ohio river at Cincinnati to Lake Erie, at Toledo, 250 miles in length, cost \$5,920,200.41; branch from Junction to State line, 18 miles, \$450,000; Sidney feeder, from Lockington to Port Jefferson, 14 miles, \$391,258.32; a total of 282 miles, and cost \$6,762,458.73.

The following reservoirs belong to this canal: Grand reservoir, Mercer county, containing about 17,000 acres, cost \$528,227.07; Lewiston reservoir, in Logan county, containing about 7,200 acres, cost \$600,000 and the Laramie reservoir, in Shelby county, containing about 1,800 acres, cost, exclusive of canal, \$22,000, which amount is included in the construction of the canal. Total cost of the Miami and Erie canal, including reservoirs, \$8,062,680.80.

The minimum breadth of this canal at water line, from Cincinnati to Dayton, is 40 feet; at the bottom, 26 feet, and the depth, 4 feet. From Dayton to Junction, breadth at top water line, 50 feet; at the bottom, 36 feet, and depth, 5 feet. From Junction to Toledo, the width at top water line is 60 feet; at the bottom, 46 feet, and the depth, 6 feet. The number of locks is 105.

HOCKING CANAL.

Extending from Carroll at the junction with the Ohio canal to Athens, 56 miles. Cost of construction, \$975,481.01. The number of lift-locks is 26. The dimensions of this canal are the same as the Ohio canal. *Abandoned for canal purposes by the legislature in 1894. See Senate Bill No. 315, passed May 18, 1894.*

WALHONDING CANAL.

Extending from Roscoe to Rochester. 25 miles. Commenced in 1836, completed in 1842. Cost of the construction, \$607,268.99. The number of lift-locks is 11; number of guard-locks, 1. The dimensions of this canal are the same as the Ohio canal. *All of this canal lying west and north of lock No. 5, a length of 19 miles, was abandoned April 27, 1896. See H. B. No. 508, passed that date.*

RECAPITULATION.

Cost of construction of the canals, including reservoirs and feeders, \$14,340,-572.59. Number of lift-locks, 294; number of guard-locks, 10.

The three tables following show the receipts and expenditures annually, from the opening of canals, 1827, to November 15, 1901.

TABLE SHOWING THE EXPENDITURES EACH YEAR FOR SUPERINTENDENCE, REPAIRS AND COST OF COLLECTION ON THE OHIO CANALS, FROM 1827 TO 1901, INCLUSIVE.

Year.	Ohio Canal.	Miami and Erie Canal.	Hocking Canal.	Walhonding Canal.	Total on all the Canals.
1827	\$700 00				\$700 00
1828	900 00				900 00
1829	1,100 00	\$11,529 59			12,629 59
1830	1,300 00	7,138 05			8,438 05
1831	2,100 00	7,155 06			9,255 06
1832	3,600 00	9,937 91			13,537 91
1833	33,740 00	7,643 83			41,383 83
1834	79,713 68	10,165 37			89,879 05
1835	81,711 15	19,152 57			100,863 72
1836	91,402 26	30,993 77			122,396 03
1837	123,463 22	49,231 91			172,695 13
1838	202,248 30	35,357 25			237,605 55
1839	204,709 65	47,491 19			252,200 84
1840	122,249 65	25,053 55			147,303 20
1841	133,454 53	53,462 55			186,917 08
1842	139,165 87	23,560 70			162,726 57
1843	126,046 24	36,826 05			162,872 29
1844	122,052 21	37,081 55		\$1,238 10	160,371 86
1845	126,274 23	53,511 52	\$5,580 04	3,137 61	188,503 40
1846	78,433 09	115,668 03	5,105 56	1,483 56	200,690 24
1847	120,728 24	107,380 25	8,067 32	5,155 59	241,331 40
1848	137,803 28	132,050 59	17,826 17	1,875 53	289,555 27
1849	120,283 14	259,706 84	10,712 85	2,523 57	393,206 40
1850	124,754 57	151,346 57	12,201 14	2,066 63	390,388 91
1851	137,262 50	179,311 73	8,376 88	4,351 60	329,302 61
1852	112,367 52	270,471 18	14,540 85	3,064 32	400,443 87
1853	142,281 71	269,435 44	9,088 61	2,151 53	422,957 29
1854	117,847 89	216,371 97	10,867 31	1,796 85	346,884 02
1855	106,145 05	233,107 57	7,741 98	1,169 61	348,164 21
1856	120,299 54	236,193 62	41,872 86	12 14	398,378 16
1857	125,545 15	172,047 70	29,399 32	5 84	327,098 01
1858	155,497 30	157,401 30	26,745 93	651 35	340,295 88
1859	96,407 58	159,813 90	15,389 99	2,529 65	274,141 12
1860	180,858 97	148,514 64	12,124 17	4,313 19	345,810 97
1861	36,534 70	69,697 27	6,336 80	2,004 56	114,573 33
1862	5,036 69	1,025 74	375 00		6,437 43
1863	2,915 37	1,050 00	694 14		4,659 51
1864	2,419 02	11 90			2,430 92
1865	2,394 24	5,472 66			7,856 90
1866	3,733 34	2,144 14	378 79		6,256 27
1867	6,699 66	2,317 29			9,016 95
1868	9,533 33	998 18			10,531 51
1869	5,300 00	3,879 20			9,179 20
1870	3,067 38	13,601 79	968 00		17,637 17
1871	1,943 96	11,583 75	78 18		13,605 89
1872	4,844 04	7,015 68			11,859 72
1873	22,948 78	6,914 10			29,862 88
1874	1,919 03	11,319 35			13,238 38
1875	1,961 04	1,001 15			2,962 19
1876	2,097 16	14,325 87	900 00		17,323 03
1877	1,961 04	2,019 78	2,719 25	459 84	7,159 91
1878	40,282 39	49,717 78	8,597 88	676 09	99,274 14
1879	68,269 14	82,547 69	9,833 13	473 85	161,123 81
1880	85,434 94	108,972 95	10,830 05		205,237 94
1881	88,178 10	86,279 87	11,430 24		185,888 21
1882	82,102 22	101,769 14	8,674 36	400 00	192,945 72
1883	92,666 58	47,363 79	34,770 43		174,804 80

TABLE SHOWING THE EXPENDITURES EACH YEAR FOR SUPERINTENDENCE, REPAIRS
AND COST OF COLLECTION ON THE OHIO CANALS, FROM 1827 TO 1901, INCLUSIVE.

Year.	Ohio Canal.	Miami and Erie Canal.	Hocking Canal.	Walhonding Canal.	Total on all the Canals.
1884	122,644 86	89,596 78	17,684 63	489 56	230,415 83
1885	103,180 37	98,449 55	7,458 13	1,511 74	210,600 29
1886	87,046 74	88,935 64	10,237 76	10,630 72	196,850 86
1887	103,281 89	71,431 06	5,529 32	4,578 62	184,820 89
1888	123,690 87	98,838 94	7,379 67	2,095 18	232,004 66
1889	88,519 30	68,353 19	6,210 11	890 15	163,981 75
1890	80,512 64	79,137 41	4,318 79	945 12	164,913 96
1891	89,773 15	78,685 68	1,938 10	1,028 35	171,425 28
1892	85,027 86	97,434 09	5,731 51	860 66	189,054 12
1893	83,333 61	63,092 29	3,215 54	1,059 99	150,701 43
1894	105,490 39	118,627 21	4,396 65	2,843 27	231,357 52
1895	67,072 80	80,583 84	.....	.....	147,656 64
1896	77,912 51	100,218 95	.....	.....	178,131 46
1897	64,685 36	83,642 02	.....	.....	148,327 38
1898	85,532 60	94,417 65	.....	.....	179,950 25
1899	90,139 76	81,791 94	.....	.....	171,931 70
1900	95,974 07	74,773 49	.....	.....	170,747 56
1901	78,526 43	137,715 47	.....	.....	216,241 90
Totals .	\$5,677,134 39	\$5,510,928 02	\$407,256 14	\$68,474 07	\$11,663,792 96

TABLE SHOWING THE RECEIPTS ON ALL CANALS, FROM 1827 TO 1901, INCLUSIVE.

Year.	Ohio Canal.	Miami and Erie Canal.	Hocking Canal.	Walhonding Canal.	Total on all the Canals.
1827	1,500 00				\$1,500 00
1828	4,000 00	\$8,042 70			12,042 70
1829	27,000 00	20,941 36			47,941 36
1830	30,493 93	30,082 33			60,576 26
1831	64,864 17	36,643 88			101,508 05
1832	79,982 48	36,847 47			116,829 95
1833	136,555 70	50,470 63			187,026 33
1834	164,488 98	50,040 99			214,529 97
1835	185,664 48	51,917 00			237,581 48
1836	211,823 32	50,116 52			261,939 84
1837	293,428 79	62,833 40			356,262 19
1838	382,135 96	82,863 09			464,999 05
1839	423,599 84	82,601 19			506,201 03
1840	452,122 03	74,612 88	\$5,953 69		532,688 60
1841	416,202 63	76,718 17	2,518 26		495,439 06
1842	387,442 22	71,460 34	4,215 07	\$610 17	463,727 80
1843	322,754 82	105,640 09	4,349 33	837 77	433,532 01
1844	343,710 99	139,844 25	5,286 44	1,976 78	490,818 46
1845	260,369 33	185,243 78	5,497 83	1,282 95	452,393 89
1846	336,339 69	233,527 24	5,351 52	1,190 71	576,409 16
1847	452,530 76	292,037 00	7,299 14	2,328 77	754,195 67
1848	418,530 37	325,297 32	8,746 98	1,933 01	754,507 68
1849	362,630 48	322,244 43	8,354 84	1,594 72	694,824 47
1850	388,905 93	311,589 27	8,077 44	2,549 04	711,021 68
1851	432,711 38	351,897 72	11,802 04	2,613 44	799,024 58
1852	308,937 40	308,984 56	9,957 25	1,880 80	629,758 01
1853	258,793 09	323,599 97	11,912 21	1,233 25	595,538 53
1854	192,837 18	280,115 80	12,597 18	223 66	485,773 82
1855	196,164 61	229,370 57	16,279 35	377 20	442,191 73
1856	189,506 55	119,947 02	11,118 29	501 89	321,073 75
1857	155,598 11	153,733 37	18,219 41	268 54	327,819 43
1858	108,771 84	153,928 09	16,367 54	798 46	279,865 93
1859	88,205 85	127,610 10	18,336 36	527 18	234,679 49
1860	90,968 39	159,476 64	16,494 28	789 70	267,729 01
1861	36,534 70	64,632 31	7,363 48	755 04	109,285 53
1862	5,036 69	4,664 00	285 67		9,986 36
1863		6,186 11			6,186 11
1864		3,531 66			3,531 66
1865	2,790 50	800 00			3,590 50
1866	2,199 50				2,199 50
1867	5,300 00				5,300 00
1868	1,200 00				1,200 00
1869		2,400 00			2,400 00
1870					
1871		311 00			311 00
1872					
1873					
1874					
1875					
1876					
1877					*401,003 09
1878	54,026 99	54,138 89	5,513 98	5,516 98	119,196 84
1879	76,609 21	112,090 32	8,185 69	275 32	197,160 54
1880	77,545 66	111,259 67	19,235 58	7,470 45	215,511 36
1881	61,819 03	109,122 88	6,304 45	608 41	177,854 77
1882	57,703 25	98,764 97	5,614 43	1,573 89	163,656 54
1883	44,873 52	88,904 17	3,693 47	920 42	138,391 58
1884	37,787 79	83,992 14	2,271 41	448 30	124,499 64

TABLE SHOWING THE RECEIPTS ON ALL CANALS, FROM 1827 TO 1901, INCLUSIVE.

Year.	Ohio Canal.	Miami and Erie Canal.	Hocking Canal.	Walhonding Canal.	Total on all the Canals.
1845	\$25,149 98	\$79,156 21	\$2 587 18	\$71 95	\$106,965 82
1846	27,071 78	76,043 57	3,199 29	945 71	107,260 35
1847	28,932 35	87,200 36	4,138 38	932 34	121,203 43
1848	29,509 46	75,955 13	3,798 36	906 02	110,168 97
1849	28,005 47	79,476 83	2,605 15	892 12	110,979 56
1850	29,489 20	73,788 02	1,629 17	933 18	105,839 57
1851	42,756 24	63,876 47	856 38	1,023 48	108,512 57
1852	24,990 37	86,722 96	1,197 37	923 64	113,834 34
1853	29,023 90	66,211 86	689 33	588 00	96,513 09
1854	22,716 35	74,716 75	120 51	6,671 73	104,225 34
1855	24,544 25	80,324 41	.....	† .....	104,868 66
1856	25,591 24	97,327 12	.....	† .....	122,918 36
1857	26,132 17	80,293 14	.....	† .....	106,425 34
1858	22,380 54	57,433 64	.....	† .....	79,814 18
1859	21,657 71	69,151 41	.....	† .....	90,809 12
1860	24,883 25	61,896 70	.....	.....	86,779 95
1861	20,223 42	67,180 60	.....	.....	87,404 02
Totals .	\$9,086,355 84	\$6,927,832 46	\$288,469 42	\$54,972 14	\$16,758,633 83

† Receipts from Walhonding canal included in Ohio canal receipts.

* From lessees and receiver from 1861 to 1878, inclusive.

TABLE SHOWING THE GROSS RECEIPTS, TOTAL EXPENDITURES AND NET EARNINGS FROM 1827 TO 1901, INCLUSIVE.

Year.	Gross receipts.	Total expenditures.	Net earnings.
1827 to 1901 (inclusive)	\$16,758,633 83	\$11,663,792 96	\$5,094,840 87

The Muskingum river improvement, having passed into the possession of the General Government in 1887, I have omitted from the above tables the receipts and expenditures on said river, and only include the canals now in the possession of the State, except the recently abandoned Hocking canal, statistics of which are listed for reference.

On the second day of June, 1861, the public works of Ohio were leased by the act of the Legislature, passed May 9, 1861, for twenty thousand and seventy-five dollars (\$20,075) per annum. Said lease continued in force until December 1, 1877, at which time the lessees abandoned the public works and by appointment of the Superior Court of Montgomery county they were placed in the hands of a receiver until May 15, 1878, at which time the State Board again took possession of the public works of Ohio.

Amount received from lessees, 16½ years, at \$20,075.....	\$331,237 50
Amount received from December 1, 1877, to May 15, 1878..	69,765 59

Total amount received and included in above table.....	\$401,003 09
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The expenditures by the Board of Public Works for superintendence and repairs ceased with the transfer of the canals to the lessees. All expenditures during that time were for the settlement of prior claims, awards of damages, expenses of the office of the Board, expenses incurred in the appraisement of personal property sold to the lessees, and the payment of outstanding indebtedness provided for by the act "making appropriations for the maintenance of the public works," passed May 13, 1861.

Under the law authorizing the lease of the public works of the State, C. S. Hamilton was appointed by the Governor, Paul Weatherby by the Board of Public Works, and John G. Isham by the lessees, to appraise the personal property of the State, which the lessees were required by said act to purchase. The value of the property appraised by them and transferred to the lessees amounted to fourteen thousand one hundred and seventy-three and 64-100 dollars (\$14,173.64):

NOTE—The foregoing items of "condensed statistics" are repeated in each annual report for the information of interested parties who have not a complete file of this Board's reports for reference, to enable them to follow the changes that have taken place, for instance the abandonment of the Hocking and a part of the Walhonding canals, also the successive changes in footings of receipts and expenditures.

Respectfully submitted,

S. G. MCCOLLOCH, *Secretary.*

REPORT OF
THE
CHIEF ENGINEER
OF
PUBLIC WORKS OF OHIO
AND
GENERAL SUPERINTENDENT OF CANALS,
1901.

(31)

REPORT OF CHIEF ENGINEER OF PUBLIC WORKS OF OHIO.

DECEMBER 20, 1901.

To the Honorable Board of Public Works:

GENTLEMEN:—In obedience to legal requirements and in conformity with the custom of this office, I have the honor to submit herewith my annual report of the operations of the Public Works for the fiscal year ending on the 15th day of November, 1901, with my usual message in the interest of the Department.

SUGGESTIONS AND FINANCIAL ANALYSIS OF CANALS.

With a full knowledge of the fact that the average cost per ton per mile for the transportation of freight by means of the larger ocean and lake vessels is about one-tenth of the cheapest possible railway rates, capitalists, engineers and inventors are naturally more seriously than ever contemplating the construction and improvement of inland waterways and the canalizing of rivers as the nearest approach to this cheapest method of carriage, in order that the products of the mines, the quarries, the granaries and the forests may be moved more cheaply to the markets of the world, and in order that the trading interests and the importance of the interior towns, cities and business centres may be maintained and fostered, and that in the great race for commercial supremacy they may be kept abreast of their more fortunate rivals situated nearer the sea board.

The inland waterways of the world, especially those situated as the canals of Ohio are, have practically been permitted to remain in a dormant condition for more than half a century, *sans* almost everything that would enable them to keep pace with modern times, a state of affairs that has given rise to an erroneous estimate of their true value as freight carrying competitors, and to the unjust conclusion on the part of many that they have become obsolete and useless.

Canals, like railroads, must possess the requisite advantage of sufficient trade in order to make their improvement and building a paying investment; they must have what the successful railroads have—through and local traffic and means for an interchange of freight—in order to make them worthy of consideration. Besides all this the canal must possess a sufficient cross-section and an abundance of water at all times to float boats carrying large enough cargoes to insure its ability to compete with other carriers in cheapness of transportation, the latter requirement being of no slight importance to its success, as it is a well known fact that the larger the cargo, the smaller the cost of moving freight per ton per mile.

While admitting the truth of the statement that such canals as are not favored with business facilities nor surrounded by such requisite natural physical advantages as would ever make them successful, have outlived their usefulness and should be abandoned, I hold firmly to the opinion that many of the canals of the world whose temporary failure is due to unbusiness-like treatment and want of such proper advancement as that accorded to railroads, may still be made important factors in the economy of commerce as common carriers, and that Ohio is blessed with at least one canal, if not three, across the State, any one of which commands all the natural advantages and all the business that would warrant its proper improvement and operation and insure a successful issue.

It is well to bear in mind in comparing railroad traffic with that on the canals of Ohio that not much more than forty years ago a safe car load was considered ten tons, while now cars carry fifty tons with greater dispatch and with less cost per car per mile, due entirely to the improvements of every description that inventive genius could devise, while the canals have been permitted to exist without a single improvement since, in fact, the time that they were first built—more than that, have been suffered to decline until their physical condition in many respects is at its lowest ebb.

In defense of the Ohio State canals, it is gratifying to be able to submit herewith a record of their operations, that the credit due may be given them and that proper honor may be paid to the memory of their founders.

RECORD OF THE CANALS.

Cost of construction.....	\$15,967,652 69
Cost of maintenance and operation to November 15, 1901.....	12,464,130 09
Total cost of canal system.....	<u>\$28,431,782 78</u>
Gross receipts from 1827 to 1901.....	\$17,556,722 10
Deficit	10,875,060 68
Present value of entire canal property estimated at.....	15,000,000 00
Gross receipts from 1827 to 1901, as shown above.....	\$17,556,722 10
Cost of maintenance and operation to November 15, 1901, as shown above	12,464,130 09
Net revenue, not including cost of construction and value of canal property to the State.....	<u>\$5,092,592 01</u>

In explanation of these figures, I take the liberty of quoting from the able report of the Government Commission, appointed by the River and Harbor Act of August 17, 1894, authorized and directed by Congress to enquire into the feasibility, advisability and practicability of improving and enlarging the canals of Ohio, as follows:

"From the year 1835, after the completion of the Portsmouth terminal, to and including the year 1855, the gross receipts on the Ohio Canal were \$7,757,-287.70, or an annual average of \$369,000.00. The net revenues were \$4,524,446.01, or an annual average of \$215,450.00.

From 1843, after the completion of the Miami and Erie Canal, to and including 1855, the gross receipts on the Miami and Erie Canal were \$3,409,392.00, or an annual average of \$262,260.00. The net revenues were \$1,347,062.71, or an annual average of \$136,200.00.

For the entire State canal system, from the dates when communication was first opened through to the lake and river to and including the year 1855, the gross receipts were \$11,166,679.70, with an annual average of \$631,660.00, and the net revenues were \$5,871,508.72, with an annual average of \$351,650.00."

The above date, 1855, was adopted by the Commission in making their analysis of the history of the Ohio canals, because as they say "it marked the period of change of public sentiment in regard to these works," as it was at that time that railroad construction began to assume important proportions, and "the State losing faith in the capacity of her canals to compete with the new method of carriage coming into vogue, adopted the most effective course possible to destroy their efficiency, by leasing them to private parties through a period of 17 years, beginning with 1861."

The Commission further say regarding this branch of their investigations of the present canal system:—

"Had the State canals been maintained in efficient repair, with wise and economical administration, even without extensive enlargement, the above annual averages would not only have been maintained, but would have been increased. But assuming them to have remained stationary during the forty years since 1855, the financial record of the canals would now stand:

PERIOD.	GROSS RECEIPTS.	NET REVENUES.
Prior to 1856.....	\$11,166,679 70	\$5,871,508 72
1856 to 1895.....	25,266,400 00	14,066,000 00
Total	\$36,433,079 70	\$19,937,508 72

Adding to these sums the figures for the Ohio Canal prior to 1835, and for the Miami and Erie Canal prior to 1813, would give over \$38,000,000.00 gross receipts and over \$20,000,000.00 net revenue. The State would thus be \$4,000,000.00 ahead in the record of her canals over and above all expenses on the basis of direct benefits alone: and this in addition to the value of the canal property."

In summing up this branch of their investigation the Commission say: "The above financial record of the Ohio canals must be considered in connection with the adverse conditions prevailing, or otherwise it might be erroneously cited as an argument against the commercial value of artificial waterways."

All of this coming from an able and unbiased source gives credibility to the opinion held by the friends of the canals, that the State has been and is pursuing a false policy in relation to her Public Works.

ADVISABILITY OF IMPROVING THE PRESENT CANAL ULTIMATELY LEADING TO THE BUILDING OF A MODERN BARGE CANAL.

While I believe that the State's interest is more deeply concerned in a canal the business of which is confined within its borders, thus fostering and bettering its own manufacturing and agricultural importance, than in a barge canal of such a size as would permit its boats to navigate the lakes and rivers, thereby giving it an inter-state and national character and value; and while I appreciate the fact that the building of a modern barge canal would be beyond the financial ability of the State, I have nevertheless taken the liberty of discussing briefly the advisability and profitableness of improving the canal within the means of the State and of showing by comparison the proportionate value of a modern barge canal.

I believe the first would be an advisable undertaking for the State as a preparation for the later development that I think will follow; I also believe that a modern barge canal is feasible and practicable and will ultimately secure the aid of the general government in its building and operation which will give it inter-state and national importance and open the way to an interchange of freight by water throughout the great chain of lakes and the equally great river systems of the South and Southwest.

A full analysis of the questions and problems involved in the feasibility and advisability of constructing a modern barge canal across the State, whose boats can safely and profitably navigate both the river and the lakes in the interchange of trade, would be too technical in its nature to be fully entered into in this paper; however, to give emphasis to opinions expressed in these reports and out of respect to the confidence of others who have held favorable con-

tions as to the success of such a scheme and who are fully competent to speak in the premises, I take the liberty of summarizing a few of the salient and most important features that enter largely into the question at issue and substantiate the correctness of such findings.

In order that my argument in favor of the ultimate construction of a modern barge canal may be as forcible and comprehensible as the volume of this report will permit, I am forced to confine myself to the discussion of the merits of one of the canals of the State, and as renewed interest in the Miami and Erie Canal from Cincinnati to Toledo is especially displayed by reason of agreements entered into with a private corporation to install an electric haulage plant throughout its entire length, and also by reason of recent liberal appropriations made for it by the General Assembly for its improvement, I take that particular canal as the basis of my discussion, thereby implying no disrespect to the merits of the other canals of the State each of which possesses individual superiority which it would be advisable for the State to fully understand before it permits any of them to be abandoned.

I maintain that the Miami and Erie Canal — except for the emergency appropriation made necessary by unusual devastation in recent years, and the special appropriation lately made by the Legislature for its improvement — has been and is self-supporting, even with the business methods at present employed, and in spite of its embarrassment from the want of sufficient appropriations in the past, and that it can be made more profitable, even if it is compelled to be confined to its small size and animal power for the propulsion of boats.

To substantiate this latter opinion it is only necessary to call your attention to the small rentals the State is getting for water and water power furnished to private parties and to manufacturing concerns, and to the fact also that the department is devoid of proper business organization for soliciting and handling freight.

The want of proper business methods in this latter regard is owing to no fault of your Board, but may be charged to the inadequacy of the rules and regulations governing your actions prescribed by the Statutes, and to old customs which are difficult to change, even for the betterment of the canals, without proper encouragement from the Legislature.

A large proportion of the boats plying on our canals are poorly equipped and are mostly owned by individuals without capital, some even lacking a master of proper responsibility to fit them as common carriers.

We have, however, excellent exceptions to this rule in the Cincinnati & Hamilton Canal Boat Company, the Skillman Packet Line, the lines operated by The Fox Paper Co., The Clifton Springs and The Edgemont Distilling Companies, the Cincinnati Ice Company, the Cincinnati Sand Company, the Chambers Dayton line, and individual owners of boats throughout the entire canal system, who, by the exercise of good commercial methods in the transaction of their business, have got good returns, being able to pay operating expenses, interest on the investment, and dividends to their owners and stockholders. It is only fair to say that all of this has been accomplished by these companies and individual owners of boats in the face of adverse conditions and with very little encouragement from the State.

The actual average earnings of the M. and E. Canal by cash collections for the past ten years have been \$74,125.86, which I have no hesitation in saying can be increased at least fifty per cent. by the institution of good business methods, reasonable appropriations, and fair encouragement from the State to believe that its life is to be prolonged, even should animal power still be retained as the means of propelling its boats and should its business be confined to local trade.

The above average earnings for the past ten years does not include some \$200,000.00 that the State has received from the sale of canal lands at Cincinnati and Hamilton during this period.

As I have estimated before in these reports, by reason of the small cross section of the canal and its physical condition, boats are limited, with profit, to such a proportion of length of haul to their cargo capacity as one mile bears to a ton; that is, a boat's load on a canal of four feet depth is about 65 to 70 tons, its entire length of haul with profit being limited to about 65 to 70 miles, or, in fact, a distance about equal to that between Cincinnati and Dayton.

If the Miami and Erie Canal Transportation Company, to whom was assigned the right of Thomas N. Fordyce to install electrical haulage, can reduce the expense of carriage to one-third that of animal power, the deduction can readily be made that through freight can be carried the entire distance of the canal from Cincinnati to Toledo with the same dispatch and with the same proportionate profit for the business undertaking, thereby not only enhancing the value of the canal as a carrier and increasing its capacity, to this extent, but correspondingly cheapening the cost of carriage on shorter hauls.

From experiments made The Miami and Erie Canal Transportation Company promise by means of their electrical mule, greater proportionate advantages over animal power than those assumed above, and claim especially that if the canal were improved to a minimum depth of five feet instead of four feet of water, which would permit the handling of boats of 100 tons instead of 65 or 70 tons—which could be done at a reasonable expense, the present locks being sufficiently large for boats of that size if properly modeled—the favorable results would be surprising and would raise the credit of the canal to a premium.

Although I confidently believe in the correctness of these estimates for some considerable time to come, I am firmly of the opinion that in order that the canal may be able to satisfy the demand for lower freight rates for all time, and in order that its great usefulness and competing power may be lasting, it must afford greater facilities for the exchange of freight and to this end must eventually be enlarged to such dimensions as to accommodate boats of a modern barge type which can sail through all the ramifications of a great system of waterways afforded by the great lakes and rivers, taking part in the commerce of the world.

As grave doubts have been expressed by some of the lack of sufficient water to maintain a canal of any considerable size which would insure a reasonable benefit in return for the expense of the outlay, I deem it proper to make the following brief statement in relation thereto, resorting to quotations from the report of the Government Commission referred to, a careful examination and study of which is most earnestly commended.

Unfortunately under the conditions imposed by the Act of Congress the investigations of the Commission were confined to a canal of seven feet depth by seventy feet width at water line, their conclusion in reference to the three routes across the State being that it would be feasible to construct a canal of the dimensions specified in the Act of Congress, but that the construction of such a canal would not be advisable in the interests of the general government, as a canal of so limited a cross-section would not be of such a type and size as would permit its boats to navigate the Great Lakes, an important requisite to its ultimate success as a government waterway.

However, in deference to the expressed wishes of the Miami and Erie Canal Association and of the friends of the canal having deep interest in the subject, the Commission made a careful investigation of the possibility of a canal that would be practicable and at the same time advisable, of such dimensions as would enable it to meet the requirements of a modern waterway and would be a good investment for the government to make. They found that sufficient feed would

be amply provided for such a canal across the State on at least two of the lines investigated, that of the M. and E. Canal and that from Portsmouth to Sandusky by way of Columbus. They advised the adoption of a canal having a trunk of 85 feet at top water line and 60 feet in width at bottom, ten feet in depth, with locks 26 x 200 feet, having 12 foot lifts. In concluding this subject of their investigations the Commission say "such a canal would carry vessels large enough to be seaworthy on the lakes and as large as can probably ever be carried on the river," — in fact a barge canal that would permit the navigation of boats of minimum size for the lakes and of maximum size for the river. The Commission also found that by a reservoir system for the storage of water at the summits there would be ample water to feed such a barge canal, assuming in their estimates a loss from filtration and evaporation, etc., of 125 cubic feet per mile per minute on slopes, and 50 cubic feet per mile per minute on the summit.

The Commission in their discussion of the subject further say "Barges to be profitable and sufficiently seaworthy to navigate the Great Lakes, should have a depth of not less than 8 or 9 feet and for the navigation of such barges a canal should have a depth of not less than 10 feet, with accessories as above stated." "A canal of such depth, if connected with a river channel permitting, during the canal season, a draft of 8 or 9 feet on the Ohio to the mouth of the Great Kanawha and Pittsburgh, would enable full advantage to be taken of the greatly cheaper rates at which freight can be carried by waterway than by railway in the large interchange between the Ohio river and the lakes of heavy traffic to which waterways are especially adapted."

In regard to the business that such a barge canal would accomplish the Commission estimate "that about 60 per cent. of its commerce would consist of ore, coal and lumber exchanged with river and lake, and 40 per cent. of the trade would be confined to local traffic of stone, coal, agricultural products and manufactured articles."

It is plainly evident from these figures what a great advantage a barge canal, which would permit its boats to navigate the lakes and rivers in the interchange of business, would have over a canal that must depend almost entirely on local traffic for support. Besides this, the larger barge canal would have an interstate and national importance and could better secure inter-state and government aid in its building.

I beg to say that the above brief statement touching the future usefulness of our canals is in line with my opinion expressed in these reports for the past six years, and is in accordance with my discussions with your Honorable Board on the subject.

The State of New York adopted a plan for the enlargement of the Erie Canal to a modern barge canal which will cost \$28,000,000.00, \$9,000,000.00 of which was voted for by the people at a State election held November 5, 1895, and has been expended, and the Governor will in his next message, advocate that the appropriation of the balance, \$18,000,000.00, asked for, be submitted to the people for their approval to be decided by popular vote. The Governor will also recommend, it is believed, the policy of such an undertaking, which will not only give the great West better facilities for shipment through the State to the sea-board, but will facilitate local shipments and encourage internal commerce, thus giving more employment to the State's own people.

The importance of our Public Works to the future commercial growth of Ohio is parallel to the importance of the New York canals to that State, although the building of a barge canal across Ohio connecting the lakes with the Ohio river, will be an extension of the future great system of New York canals connecting the lakes and the Ohio river with the Hudson river and the seaboard.

As I have said before, although the building of such a modern barge canal across Ohio may be beyond the financial ability of the State, it will in time, I believe, be of such interstate and national importance that it must attract the favorable attention of the general government. Awaiting that time it would be well for the State to exercise proper care of its canal property.

A modern barge canal of the size that I have recommended compares with our canals of present size as a trunk line railroad compares with a narrow gauge railroad, and as the heavy steel rails and present railroad equipment compare with the light rails and cars in vogue fifty years ago.

To show what great power and value a barge canal, such as that I herein advocate would have as a competing carrier and freight regulator, I take the liberty of quoting from a paper read by Mr. T. C. Clarke, member of the American Society of Civil Engineers at the Annual Convention of the International Deep Waterways Association, giving estimated rates at which freight can be transported from Chicago to New York by various methods, viz.: by all rail, by changing cargo at Buffalo from large lake vessels, by rail and present Erie seven foot canal, by lake and large ship canal to be built across New York to the Hudson, and by a modern barge canal of nine feet depth, permitting boats hauling 600 tons each direct from Chicago to New York without change of cargo.

Mr. Clarke advocates the modern barge canal in no uncertain terms as the cheapest carrier, in preference to any other possible means of moving freight from Chicago to the port of New York.

I quote from him as follows:—

“(By Erie Canal deepened to 9 feet.) Fleets of one tug boat and four steel barges 180 x 17½ loaded to 7½ feet draft; capacity 2,400 tons. The time would be as follows: Lakes and rivers, 1,013 miles, at 6 miles an hour, 169 hours. Canal, 350 miles, at 4 miles an hour, 87.5 hours; 20 days 15.5 hours. Total in motion, 272 hours; both ways, 544 hours, or 23 days. Time in port 13 days, or 26 days per round trip, allowing of 6 round trips per season. Expenses, on same basis as before, estimated, \$24,000. Estimated receipts, cargo now carried 2,400 tons in four barges: Full east, 80,000 bushels at 2c., \$1,600; two-thirds, west, 1,600 tons freight at \$2.00, \$3,200.; \$4,800 per trip; six round trips is \$28,800. Cost of conveying a bushel of grain from Chicago to New York, 2c. a bushel.”

I most respectfully refer you to Mr. Clarke's paper as an able analysis of the subject of barge canals, giving minute details that space forbids more than a reference to in this report. (See Proceedings International Deep Waterways Association, held at Cleveland in 1895, page 273.)

New York has virtually adopted Mr. Clarke's findings in the proposed improvement of its canals.

If, after the improvement of the Erie Canal now projected is made, it proves true that a bushel of grain can be conveyed by means of such a barge canal from Chicago to New York harbor, a distance of fourteen hundred miles, for two cents a bushel, and other freight in proportion as Mr. Clarke estimates, it will readily be seen of what great importance a barge canal of equal size would be to the State of Ohio and the country contiguous to the Ohio and Mississippi rivers; it would afford cheap transportation not only for the surplus agricultural product for export, but for the iron ore of Lake Superior, the coal of the Pittsburgh fields, and the raw material of every description to our manufacturing centres and their finished product to the market, thereby inviting the investment of capital within our borders and giving employment to our people. Not only this, the canal would be owned and controlled by the people for all time, and

would be a governing factor of far-reaching importance to the Commonwealth, as opposed to the menace of impending ownership and control by great railroad systems or powerful private corporations and trusts.

RECOMMENDATION OF THE IMPROVEMENT OF THE MIAMI AND ERIE CANAL.

In enlarging upon the question of the practical future betterment of the canal system of the State, I again beg permission to confine myself to the improvement of the Miami and Erie Canal, eliminating from the discussion the other canals of the State for the reason that space forbids a full analysis of all, as their physical condition and possibilities are of individual character. However, much of what I have to say regarding the Miami and Erie Canal will apply equally well to the other canals.

If anything is to be done to perpetuate any of the canals or the entire system, it should and must be done in a systematic manner. An appropriation by the State will be required for that purpose, but as the State is unable at this time to appropriate a sufficient amount, in order that your Honorable Board may advisedly distribute such an appropriation as the State *can* make over the entire system with good effect, and as a beginning must be made—and that soon and in a decided manner—in the restoration of the canals to at least a fair physical condition. I have singled out the Miami and Erie Canal as the best basis of calculation for the whole system; and if the improvement of the Miami and Erie Canal is made by the State along the lines of my suggestion, and should such an improvement prove beneficial and conducive to the good of our Commonwealth, the further improvement of the entire system in a like manner may follow.

PROPOSITIONS.

First. Improvement of the Miami and Erie Canal to a five foot depth throughout its entire length to be made by the State.

Second. Ultimately the enlargement of the entire canal to a depth of ten feet, as herein set forth, to be made by the general government, the State ceding its franchise and rights in the property to said general government for that purpose.

The Miami and Erie Canal extends from the Ohio river at Cincinnati to Lake Erie at Toledo, a distance of 244½ miles; what is known as the Sidney Feeder branches off from the main canal at Lockington and runs thence to Port Jefferson, a distance of 14 miles; this system includes also the navigable feeder of the Celina Reservoir connecting the city with the canal, and the Loramie Reservoir navigable feeder, making a total length of 270 miles of canal.

The reservoirs of this system include the Lewistown in Logan County, the Loramie in Shelby County and the Grand or Celina Reservoir in Mercer and Auglaize counties, all together having a total area of 21,000 acres.

The canal was built with the following minimum dimensions:

From Cincinnati to Dayton, width 40 feet, depth 4 feet; from Dayton to the town of Junction, a distance of 114 miles, width 50 feet, depth 5 feet; and from Junction to Toledo, a distance of 64 miles, width 60 feet, depth 6 feet.

The difference in elevation between the Lake and the Summit is 395 feet; between the Summit and the Ohio river 512 feet.

There are on this canal 105 lift locks, a total length of 1,700 feet of aqueducts, and 3,529 lineal feet of feeder dams.

The total cost of original construction was \$7,440,680.80, exclusive of certain rights of way and aid contributed by private parties and corporations.

Even the deepening of the canal to five feet throughout its entire course, and the betterment of its whole physical condition to correspond to such an improvement, would, I apprehend, cost more money than the Legislature would feel disposed to appropriate at one time.

I would therefore recommend that at this time an appropriation be asked for, including a certain amount of the earnings of this canal sufficient to make such an improvement between Cincinnati and Dayton, and so much of its earnings as may be necessary to keep the balance of the canal intact, awaiting further appropriations from the Legislature to complete the entire improvement.

FIRST PROPOSITION.

The deepening of the canal to five feet would permit the navigation of boats with a capacity of 100 tons of freight each, and would increase its present boat-load capacity 35 per cent.; it would also, I believe, effect a saving of more than this per cent. in the cost of carriage by the canal in its present condition.

Estimate of Cost of Increasing the Depth of the Miami and Erie Canal to Five Feet, the Cost of the Several Divisions being Considered Separately.

While I have given the matter all the careful consideration and time consistent with my other duties, I beg to say that the amounts given should only be considered as approximate. However, I believe that my estimates will cover all expenses incident to the improvement.

The services of an engineering corps constantly employed for several months would be necessary in order to obtain a complete and accurate estimate, and I should advise that this be resorted to.

Estimate of Cost from Cincinnati to Dayton.

Dredging canal and basins and strengthening banks.....	\$100,000 00
Improvement of locks.....	14,000 00
Improvement of aqueducts.....	3,000 00
Improvement of wasteways and regulating weirs.....	1,000 00
Improvement of dams at Middletown and Mad River at Dayton.....	3,000 00
Strengthening three-arch stone culvert at Franklin.....	3,290 00
Strengthening Hole's stone culvert below Dayton.....	2,160 00
Finishing stone canal walls at Cincinnati between 14th and 15th streets	2,000 00
Repairing and rebuilding timber walls at Cincinnati.....	1,550 00
One new repair boat and repairing State dredge.....	2,000 00
Total	\$132,000 00

As the above figures show, the total cost of the improvement between the points named, would be \$132,000.00, and the average cost per mile would be \$2,030.00. These figures do not include the cost of continuing the new stone canal walls at Cincinnati which I should advise.

Estimate of Cost from Dayton to New Bremen.

This division extends from Dayton to New Bremen, a distance of 57 miles, and includes the Sidney Feeder, 14 miles in length, making a total length of 71 miles; it also includes the Lewistown and Loramie Reservoirs.

Dredging and strengthening banks.....	\$88,656 00
Repairing and rebuilding five aqueducts including stonework.....	9,675 00
Repairing and rebuilding 25 lift locks.....	7,850 00
Repairing and rebuilding two culverts.....	1,450 00
Repairing and rebuilding waste ways and regulating weirs.....	5,300 00
Repairing and rebuilding Troy feeder and Piqua and Port Jefferson dams	4,225 00
Repairing and strengthening Lewistown and Loramie reservoir banks	9,450 00
One repair boat.....	1,200 00
One new hull for dredge.....	800 00
Miscellaneous repairs.....	3,394 00
	<hr/>
	\$132,000 00

As shown above the total cost for this division would be one hundred and thirty-two thousand dollars, and the average cost per mile would be about one thousand eight hundred and sixty dollars.

Estimate of Cost from New Bremen to Toledo.

This division extends from New Bremen to Toledo, a distance of 121 miles, and includes the Celina Reservoir feeder, three miles in length.

Dredging and strengthening banks.....	\$81,555 00
Repairing and rebuilding 7 aqueducts including stone work.....	16,780 00
Repairing and rebuilding lift-locks, 36 of wood and 16 of stone.....	61,400 00
Rebuilding wooden outlet lock at Defiance with concrete masonry including new gates.....	6,000 00
Rebuilding waste gate at Napoleon.....	400 00
Miscellaneous repairs	3,865 00
	<hr/>
	\$170,000 00

As shown above the total cost for this division would be one hundred and seventy thousand dollars, and the average cost per mile would be one thousand three hundred and seventy dollars.

Recapitulation.

Cost of improvement between Cincinnati and Dayton.....	\$132,000 00
Cost of improvement between Dayton and New Bremen.....	132,000 00
Cost of improvement between New Bremen and Toledo.....	170,000 00
Cost of engineering services and superintendence.....	16,000 00
Ten per cent. added for contingencies (a usual percentage for esti- mates of this kind).....	45,000 00
	<hr/>
	\$495,000 00

The total cost of the whole improvement would therefore be, in round numbers, \$500,000.00, which, I believe I am warranted in saying, is a safe estimate.

I would recommend that a memorial be addressed to the General Assembly asking that at least a reasonable portion of this amount be appropriated for immediate use in the improvement of the Miami and Erie canal, commencing at the southern end, the expense of the remainder to be met by further appropriations until the whole improvement is completed, thereby rescuing the property from

its present unproductive state and restoring it to good condition for the use of the people and the benefit of the state.

I believe that the state would be justified in undertaking such an improvement by the benefits that would accrue to its people directly and indirectly, and that after such an improvement is made and electrical haulage is thoroughly installed, the canal will be self-supporting for years to come.

As I have stated before, the average earnings of the canal for the past ten years amount to \$74,125.86 in the face of adverse conditions, physical disability and unsettled policy on the part of the state.

The improvement would increase the hauling capacity per boat load 35 per cent. and would reduce the cost of carriage by animal power in like proportion, inviting more business-like methods in the operation of the canal and more systematic care in the collection of its earnings. Moreover, the installation of electrical haulage without expense to the state would, as has been estimated by the Fordyce Company, reduce the cost of carriage to one-third the cost of carriage by animal power now in use. I hold, that in view of all this, together with the fact that the canal has been nearly able to maintain itself even by its present earnings, this issue invites as careful study and as favorable attention as any the state has to deal with for the common good of its people.

I think that I am justified in saying that if such a policy as I have outlined is not inaugurated by the state, the result can only be virtual abandonment of the canal through actual starvation.

SECOND PROPOSITION.

The building of a modern barge canal, connecting Lake Erie with the Ohio river may, to say the least, be reasonably expected, if indeed it does not in the near future become an absolute necessity in the economy of state and national affairs; and if, when the time is ripe for that barge canal the state has a smaller canal yielding fair results, and it is understood that the franchise is valuable, that there is a sufficient amount of water to meet the requirements of a barge canal, and that all the requisites that may be demanded can be met, the government would doubtless respond favorably to the proposition to make it a national undertaking.

The cost of a modern barge canal 85 feet in width at water line and ten feet in depth, is estimated by the government commission in their report to be "not more than \$27,000,000.00, possibly less."

The benefits that would accrue to the state from such a barge canal would be manifold and lasting, and the canal itself would be of national importance.

The greatness of France is largely attributable to her magnificent inland water ways, the best possessed by any nation; Austria has just adopted a measure of far-reaching importance for a system of canals 1,000 miles in extent, to cost \$152,000,000.00; Prussia is improving her great system of canals and has adopted electrical haulage; New York is to improve her canals at a further cost of about \$18,000,000.00; and the consensus of opinion expressed by the eminent engineers taking part in the discussion of the subject at "The International Congress of Navigation," recently held at Paris, was that a barge canal is a live issue in the economics of a government, and worthy of a place among modern freight carriers; all of which argues the beginning of a new era in artificial inland water ways.

In dealing with the canal problem which at present confronts the state, it must be borne in mind that a government does not engage in canal business for the purpose of securing revenue by direct interest on the investment, but rather for the indirect benefits derived by protecting its commercial interests, by inviting investment of private capital, by providing more employment for its people, and

by regulating freight charges. In fact a canal is like any other government institution, it is built for other objects than profit in monies paid directly into the treasury.

For a canal built solely for the purpose of regulating freight, I beg to refer you to the Manchester ship canal, built by the merchants of that city, for a distance of 35 miles to the seaboard, and costing seventy-five million dollars. It accomplished its purpose by "forcing the railways to reduce their freight rates which were regarded as outrageous," although it was disappointing as a direct interest earner on the investment. This instance is referred to in order to illustrate the power that can be exercised by a private railroad corporation in fixing and maintaining exorbitant freight charges to the embarrassment of the business interests of a large manufacturing city situated within an hour's run by rail to the sea, and the importance to a community of having some protection against dangers of this kind that at all times threaten a people, and to show the best, and sometimes the only, means that can be employed to correct such an abuse of a community.

PHYSICAL CONDITION AND MANAGEMENT OF THE PUBLIC WORKS.

Without attempting to give any personal statement of the physical condition of the Public Works as an entirety, I am pleased to quote briefly from the report of the Commission appointed by authority of the Seventy-second General Assembly to investigate and report to the Governor on the canal system of the State, the present conditions being practically the same as those that existed at that time.

A complete copy of said report is contained in the Governor's Message of January 3rd, 1898, from which the following quotations are made, to-wit:

"We have personally inspected and visited the entire canal system of the State, going over almost all of it by boat, including the various reservoirs, feeders and dams connected therewith. We have interviewed the people along the lines of the canals at the various cities and towns through which they pass, and have had public hearings at Columbus, inviting the presence of all persons interested in this subject, and have sought by all proper means for information from the citizens of the State, irrespective of locality or prejudice.

"We find that the condition of the canal system, taken as a whole, is much dilapidated and out of repair, although it is navigable its entire length, except that division of the Ohio Canal from Dresden to Canal Winchester." (See page 20.)

In addition to the above the Commission make a very careful statement of the physical condition of the several divisions of the canals, giving proper credit to the better portions of the canals.

As regards the care and management, the Commissioners say:

"With reference to the care and management of the canal system which is vested in the Board of Public Works and the Chief Engineer, we believe that a conservative, careful and faithful service has been uniformly rendered the State, and no unfavorable criticism should attach to this department because of the condition in which the canal is at the present time. They have been hampered by lack of sufficient funds and laws governing their department which do not admit of a thorough business management, such as is afforded to the other departments of the State government. The present incumbents in office in this department, we believe, have carefully and conscientiously discharged all their duties and obligations to the State, and have afforded your Commission every opportunity in their power to investigate thoroughly their department and the canal system." (See page 22.)

In connection with my analysis of the condition of the Miami and Erie Canal I beg to offer the following statistics, affecting that canal as given by the Commission, namely:

"In this connection we submit the following statistics, collected with as much accuracy as we could command, taking the Miami and Erie Canal as an example, it being navigable throughout its entire length. Along the line of the Miami and Erie Canal there is invested in industries largely dependent upon the canal and located there originally because of the canal, \$12,917,653.00; using property to the value of \$7,947,550.00; having a yearly output of \$14,425,958.00, and employing 5,932 employees at an annual expenditure of \$2,435,023.00 for wages." (See page 23.)

In concluding their report, the Commissioners say the following, which will be seen to be in accordance with the views I have set forth herein:

"We believe that a waterway, connecting Lake Erie and the Ohio river, will be undertaken at some time in the near future, and that this State, having two or more canals running north and south, will almost certainly secure that waterway if the canals are retained. We also believe that the indirect benefits that have accrued to the present time more than offset the cost of maintenance since the State has resumed control of the canal system.

Therefore we recommend a policy of improvement, along moderate lines, and should a policy of improvement be adopted, that the Legislature for the next two years appropriate a reasonable amount of money, in addition to the earnings of the canal system, for the purpose of improving and developing the canals, only where it is possible to encourage and revive the business of transportation." (See page 24.)

ELECTRICAL HAULAGE ON MIAMI AND ERIE CANAL.

Supplementary to a contract and lease made and entered into the 28th day of March, 1900, by and between the Board of Public Works, approved by his excellency, the Governor, and the Attorney General, and Thomas N. Fordyce and his assigns, "for the purpose of making such experiments as may demonstrate the feasibility of electricity as a motive power for the propulsion of boats or other crafts on the Miami and Erie Canal," and "to construct and operate a plant for the propulsion of boats and other craft on said canal," a copy of which was contained in my annual report for 1900, the Board of Public Works entered into a subsequent and final contract and lease, properly approved and attested, with said Thomas N. Fordyce and his assigns, bearing date of March 28th, 1901, a summary of which is hereto appended for general reference, to wit:

"WITNESSETH: That,

WHEREAS, The General Assembly of the State of Ohio did, on April 25, 1898, authorize the Board of Public Works of Ohio to enter into a contract for the purpose of making such experiments as might demonstrate the feasibility of electricity as a motive power for the propulsion of boats and other crafts on the Miami and Erie Canal; and

"WHEREAS, Thereafter, to wit, on the 28th day of March, 1900, said Board of Public Works of Ohio did enter into a certain contract with said Thomas N. Fordyce, of lease or permit to make such experiments, which lease or permit was thereafter, on said March 28, 1900, approved by the Governor and the Attorney General of the State of Ohio; and

"WHEREAS, A copy of said lease or permit is hereto attached and made a part thereof as fully as if herein re-written, and marked 'Exhibit A', the same being inserted in order to make reference to the terms thereof; and

"WHEREAS, Thereafter said Fordyce did make experiments with electricity as a motive power for the propulsion of boats or other crafts on the Miami and Erie Canal by poles or overhead wires constructed for such purposes, or by traction power on the berme bank or towing path of said Canal, in the manner specified

in said lease or permit aforesaid, and did thereafter, on June 12, 1900, 'make report to the Board of Public Works of Ohio of the results of said experiment; and

"WHEREAS, Thereafter, on June 12, 1900, the Board of Public Works of Ohio, in regular session, did adopt the resolution approving such experiments, a copy of which is hereto attached, and marked 'Exhibit B'; and

"WHEREAS, The Chief Engineer of Public Works has prepared specifications in accordance with said 'Exhibit A', containing such other provisions as are deemed sufficient to protect fully the state in accordance with above agreement; and

"WHEREAS, Said specifications so prepared are now on file in the office of the Board of Public Works of Ohio, reference being hereby made thereto;

"Now, THEREFORE, IT IS AGREED by and between the Board of Public Works of the State of Ohio, the lessor, and Thomas N. Fordyce, or his assigns, the lessee, that the said Board of Public Works does hereby grant to said Thomas N. Fordyce and his assigns, the right to construct, maintain and operate along the Miami and Erie Canal in the State of Ohio and upon the land adjacent thereto, all the necessary facilities for operating and propelling boats and boats only or other crafts on the Miami and Erie Canal by poles and overhead wires erected for such purpose, or by traction power along the berme banks or towing paths of such canal in the manner provided for in said specifications on file in the office of the Board of Public Works, a copy of which is hereto attached and made a part hereof, and in such manner and under such regulations as said Board of Public Works may direct. The grant hereby made is made upon the following terms and conditions:

"First. Said grant shall be for a period of thirty years after the first operation of boats thereon shall have begun, unless prevented as hereinafter specified.

"Second. Said Thomas N. Fordyce and his assigns is hereby granted by said Board of Public Works the period of two and one-half years in which to construct said plant from the city of Cincinnati to the City of Dayton, including the portions of said canal in said cities. If the said Thomas N. Fordyce and his assigns shall fail, for such period, to construct said plant between the cities designated, then this contract to be absolutely null and void; provided, however, that if the said Thomas N. Fordyce and his assigns shall be prevented from complying with this contract by any legal proceedings entered into in good faith he shall not be charged with negligence or failure to comply herewith.

"The said Board of Public Works further grants to the said Thomas N. Fordyce and his assigns the period of four years from date hereof in which to complete said plant or plants, along the entire length of said Miami and Erie Canal, and upon failure to comply therewith, this contract shall be forfeited.

"Third. In case the said Thomas N. Fordyce and his assigns shall place along, or upon the banks of said canal, any poles, wires, tracks, buildings or other structures in attempting to construct said plant for the transportation herein contemplated, and if the construction or maintenance of said tracks shall then be abandoned by said Thomas N. Fordyce or his assigns, then he, the said Thomas N. Fordyce, and his assigns, shall have the right to remove all said poles, wires, tracks, buildings or structures from said lands; provided the same are so removed within a reasonable time after the construction or operation of said plant shall have been abandoned.

"Fourth. This contract shall in no wise be considered so as to compel the State of Ohio to appropriate any money whatever for the maintenance and operation of said canal. This contract shall not be so considered as to create any financial liability whatever on the part of the State of Ohio hereafter. And it is further covenanted and agreed that the said Thomas N. Fordyce and his assigns

shall have the right and privilege to make such repairs upon said canal, under the direction of the Board of Public Works of Ohio as may be necessary for the maintenance and operation of the plant herein contemplated.

"Fifth. The said Thomas N. Fordyce and his assigns hereby covenants and agrees with the said Board of Public Works of the State of Ohio that the construction, maintenance, and operation of the plant herein contemplated shall in no wise interfere with the ordinary use, control and management of said Miami and Erie canal and shall in no wise be so considered as to limit the powers of the Board of Public Works as fixed by law.

"Sixth. It is further covenanted and agreed on the part of the said Thomas N. Fordyce and his assigns that if he shall equip and operate a plant for the transportation of boats and other crafts as herein contemplated that he will transport for hire all boats over said canal when the owners of the same shall so desire, and if the said owners and the said Thomas N. Fordyce and his assigns shall be unable to agree as to the price for propelling said boats, then the said Thomas N. Fordyce and his assigns shall propel said boats under such reasonable rules and regulations with reference to charges therefor as may be prescribed from time to time by the Board of Public Works, but nothing herein stipulated shall be so considered as to curtail the rights of the Board of Public Works with reference to tolls upon said canal as may be now or hereafter conferred upon it by law.

"Seventh. The speed of all crafts transported by the said Thomas N. Fordyce and his assigns under the terms of the grant herein made shall be limited to four miles per hour.

"Eighth. The grant herein made is in consideration of the payment to the State of Ohio of all tolls and charges made by the said Board of Public Works upon the canal boats and other crafts transported by the said Thomas N. Fordyce and his assigns and is in consideration of the exercise of such other power of control as is authorized to said Board by the Statutes of Ohio.

"Ninth. The privileges and rights hereby conferred shall be enjoyed under the conditions of the act of the General Assembly of the State of Ohio, passed on the 25th day of April, 1898, and entitled, 'An Act to Procure Better Facilities to Operate Boats on the Miami and Erie Canal,' and such privileges shall extend to the said Thomas N. Fordyce, his heirs and assigns."

The specifications to govern the construction of the plant referred to in "Exhibit A." and made a part of the agreement, are as follows:

"GENERAL SPECIFICATIONS FOR THE CONSTRUCTION AND EQUIPMENT OF THE MIAMI AND ERIE CANAL TRANSPORTATION PLANT.

"Throughout these Specifications, the word 'Engineer' shall be understood to mean the Chief Engineer of Public Works of Ohio acting under authority of the Board of Public Works, and the word 'Lessee' shall mean Thomas N. Fordyce and his assigns.

"All construction done under these Specifications will be by approval of said Engineer by authority of the State Board of Public Works of Ohio and in conformity to law and lease governing.

"As the work progresses, the Lessee shall furnish the Engineer with plans, on sheets of a uniform size, twenty inches (20") by forty inches (40") for permanent binding, general drawings one hundred feet (100') equals one inch (1"), and details on a scale twenty feet (20') equals one inch (1"). Said plans shall show, in detail, all track and overhead equipment, and all other construction and equipment to be installed on State property throughout the entire length of

the Miami and Erie Canal, between Cincinnati and Toledo, the substance of which is hereinafter provided in these Specifications.

"The construction will be executed under the approval of the Engineer. He shall have full power to reject or condemn all work or materials which do not conform to the Specifications.

"The work of construction shall be done with dispatch and shall inconvenience the business of the canal as little as possible.

"Such work shall be subject to the laws of Ohio providing for the protection of the canals of the State, and for the regulation of the navigation thereof, and for the collection of tolls thereon.

"All railroad construction shall, wherever practical, be two feet (2') above standard water height of canal in each of its levels, and, wherever necessary, in construction under bridges and in narrow places in the banks, the Lessee shall build and maintain retaining walls or pile construction to receive inner rail of track for the purpose of economizing space.

"The ballast of the roadbed shall be filled over the top of the ties, so as to give a smooth surface for present mode of towing by mules and horses, and the dimensions of banks to be built by the Lessee shall not be of a less cross-section minimum than as originally built and as shown in the Chief Engineer's Report of 1898.

"The Lessee shall build and operate all swing bridges that may be necessary in the construction, maintenance and operation of this plant, subject, however, to the proper uses thereof by the State of Ohio for canal purposes, and subject to its control for such purposes free of charge to the State.

"The Lessee shall provide all necessary turnouts for mules, and in the operation of its road, shall render reasonable assistance necessary in facilitating the passage of canal boats towed by mules and those towed through the operation of the plant constructed by Lessee under the terms hereof. At such places where the canal land is not of sufficient width to provide turnouts said Lessee is to purchase such additional width of land for that purpose. The Engineer reserves the right to designate how and at what places Lessee shall provide turnouts.

"The Lessee shall build bridges for passing streams sufficiently heavy to carry their carriages and the State shall have the right to joint use of the same for its proper canal purposes under such arrangements as said Board of Public Works may provide.

"The Engineer reserves the right to add to these such specifications as general and local conditions may demand in order to fully protect the State and any interests now held by authority of leases and permits.

"Nothing herein contained shall be so construed as to restrict the right of the Board of Public Works to dredge the canal adjacent to Lessee's track whenever it deems it necessary so to do, and in such event it shall give due notice thereof to said Fordyce and his assigns, so that he may provide suitable receptacles in which to receive said dredgings to be delivered to him by said Board, and to transport away the same.

"No encroachments will be allowed on the original water area, except in cases of emergency, and then by express authority of the Engineer.

"The Lessee is to maintain in good order to the acceptance of the Engineer his entire equipment at his own expense.

"Before any work on construction is commenced the Lessee shall submit detail drawings and profiles on sheets, of size and scale aforesaid, with general specifications to be noted on drawings. Such drawings are not to be binding on the State until properly approved by said Engineer acting by authority for the Board of Public Works.

"Said Fordyce and his assigns hereby agree to pay to the State of Ohio any and all expense caused by reason of any construction work done by the Board of Public Works, at the request of said Fordyce and his assigns to accommodate his plant, and said Fordyce shall file with said Board a bond in the sum of \$25,000.00 guaranteeing the above agreement. The Board of Public Works hereby reserves the right to increase the amount of said bond as exigencies or any local conditions may demand.

"The construction of the roadbed and entire equipment shall be made according to general standard specifications. All material entering into such building shall be of first class quality. All structures to carry loads shall be built with a factor of safety to be approved by the Engineer, to secure absolute stability.

"The construction of the roadbed shall consist of rails and their appurtenances of a weight and quality that may be deemed sufficient for safe construction.

"Road and farm crossings must be put in whenever required, in full accordance with standard specifications, and under the direction of the Engineer.

"The Engineer shall be instructed at all times during the construction and be fully advised of the amount of track being laid and yet unfinished, so as not to have at any one time a great amount of unfinished roadbed to interfere with travel of the mules which are now being used.

"All work must conform strictly to plans, profiles and special specifications for each particular construction after being approved by the Engineer, no deviation being allowed except by the Engineer's permission in writing.

"The roadbed when finished and properly settled must truly conform to profile establishing grades.

"The grading and excavation for roadbed shall include grubbing and clearing of canal banks, and other work such as drains to protect slopes of embankments and cuts that may be required to complete said roadway in a good and workmanlike manner.

"The poles and overhead motor equipment shall be placed on such alignment and elevation as shall interfere the least with the usual operations of the canal, all such structures and equipment to be made and placed according to the usual standard specifications.

"Brackets shall be of flexible suspension type with over supports, the outer end of the arm to be adjusted vertically.

"All insulation shall be properly installed and the line protected by lightning arresters placed approximately at every one-half mile of feeder, commencing at power-house pole and at end of feeders.

"The gauge of tracks and maximum size and dimensions of the electric motor shall hereafter be determined after the detail drawings shall have been submitted by said Lessee for approval of the Engineer.

"It is hereby understood that these general specifications and the rights hereby granted to the Lessee are in no manner to be construed as abrogating the bond in the penal sum of \$50,000.00 given to the State by the Commissioners of Hamilton County to forever maintain what is known as the Mitchell avenue aqueduct. Said bond having been required by reason of certain requests of the Commissioners of Hamilton County, and by resolution passed in the year 1877.

"The motors to be operated shall be of sufficient weight and power to insure satisfaction, it being contemplated that the haulage will be heavy. They must be so wound that they will be able to utilize energy continuously, to their rated capacity under all practical conditions. They shall be so geared when propelling canal boats, as not to attain a greater speed than that provided by law.

"Great care shall be taken, at all times, to preserve the banks of the canal from any injury caused by the construction work of Lessee and his assigns.

"The Lessee to have at all times the right of access to the canal banks and State property adjacent thereto, necessary for the railway construction, and operation, and shall also have the right upon proper notification to the State authorities and under their direction and supervision, to drain such portions of the canal for such times as may be absolutely necessary for special construction.

"In case the Lessee be involved in litigation concerning the possession of such portions of the canal bank or property adjacent thereto, the Board of Public Works shall, upon a favorable report of the claims of the Lessee, by the Engineer, assist the said Lessee in every reasonable way, to obtain and maintain possession of said property, for the necessary railway construction."

Besides the above proceedings a number of minor orders and resolutions in the premises have been adopted by your Honorable Body in the protection of the State's interest, and in conformity with the terms and conditions contained in the lease and contract, culminating in the approval of general and special specifications and plans for said canal electrical haulage plant on that part of the canal between Cincinnati and Hamilton, a distance of about 28 miles, in accordance with your resolution passed December 11, 1901, as follows:

"Whereas, on March 28, 1900, the Board of Public Works of the State of Ohio did enter into a certain contract and lease with Thomas N. Fordyce and his assigns, which contract and lease was readopted and supplemented by a subsequent contract and lease between the same parties under date of March 26, 1901; and,

"Whereas, under the terms of said contract and lease of March 26, 1901, plans and specifications with reference to the construction of a canal boat transportation plant were therein required, and said plans and specifications as follows, to wit: Folio Blue Print Plans No. 1 from Cincinnati to Lockland, pp. A 10 to A 26 inclusive, and pp. 1 to 65 inclusive between Stations marked 2938 and 3583+24. and Folio No. 2 from Lockland to Hamilton, pp. 66 to 87 inclusive, Stations 2100 to 2936, and bearing the approval of the Chief Engineer of the State of Ohio, have been filed with the Board of Public Works of Ohio, together with the report of said Engineer approving the same, therefore be it

"Resolved, That said plans and said report, having been examined by said Board of Public Works, be and they are hereby approved. Adopted."

The plans and specifications referred to are all contained in two folios of blue prints of 108 pages, 20x40 inches in size, which are substantially bound and on file in this office as part of the records in the case.

Work on the construction of the plant was commenced during July last and has been prosecuted as rapidly as existing conditions and a due regard for the operations of the canal would permit. It is expected that complete plans showing the construction between Hamilton and Dayton as far as the preliminary surveys have been made will be in readiness for your consideration within a short time from date.

The general specifications and plans contained in the two folio volumes referred to will govern the entire construction, further final plans to be submitted at the earliest practicable moment. In the meanwhile a careful inspection of the work now in progress will be made for the purpose of seeing that the interest of the State and the terms and conditions contained in the contract and lease are respected.

To show the progress and extent of the work that has been done on this electric plant for towing canal boats, I am pleased to append the following statement:

The Miami and Erie Canal Transportation Company, as the assigns of the lease and contract granted by the State to Thos. N. Fordyce to equip the entire

Miami and Erie Canal with towing plant from Cincinnati to Toledo, began work first in Cincinnati, following the construction of the stone walls built by the State between Lockport avenue and Plum street, where metal ties are imbedded in the coping of the walls.

Iron poles have been set between these points and are ready for the brackets and trolley wire.

The work of grading the towing path preparatory to track laying between Cincinnati and Dayton, was commenced in August and is now all completed except that portion through Dayton, Miamisburg and Middletown, and about three miles in Cincinnati and one mile north of Lockland.

The banks of the canal required widening and deepening in a great many places and at many points the accumulated dredgings of years required cuts of from six to eight feet in order to bring the banks to the established grades. The earth at all of these places was needed to widen and strengthen banks.

In its construction work the Company has already built about two miles of retaining walls of piling and heavy plank to strengthen banks where required, about 800 feet of concrete retaining walls, 500 feet of wood trestles on pile foundations, masonry for the pier and abutments for Twelfth street bridge, and masonry for the Mitchell avenue aqueduct preparatory for the steel pedestals for towing bridge at that place.

The two pile drivers at present at work near Cincinnati, I am informed by the Company, will soon be sent north to complete short trestles and retaining walls that are required at Crescentville, Rialto, and at the locks north of Hamilton, Rockdale, Excello, south of Middletown lock, Sunfish lock and various waste ways, and at places where short trestles will be required.

The masonry work stopped by the cold weather is to be continued as soon as possible.

The Company reports at this date that the steel work for Twelfth street swing bridge and Mitchell avenue aqueduct towing bridge has been ordered, and the time for delivery is past due.

The steel work over the various streams, waste gates, etc., has all been ordered and delivery of same is expected within the next thirty days. About two miles of track has been laid north of Hamilton.

The poles that are required to carry the feed wires and trolley line are set from Cincinnati to about two miles north of Lockland, and from Port Union to Woodsdale Island Park, north of Hamilton, about twenty miles in all. This work has been delayed on account of the Company's being unable to get material on time.

In regard to material on hand, the Company say that 120,000 ties have been received and distributed between Cincinnati and Dayton and about 2,000 tons of rail have been received and distributed about eight miles north and south of Hamilton. All the trolley wire copper has been received for the line between Cincinnati and Dayton, but no feed wire.

Nearly all the overhead material, such as cross-arms, brackets, insulators, etc., has been received.

The motors for towing canal boats have been ordered for some time, and delivery of same is promised in April.

Canal boats are being built at Lockland by the lessees and three of them are nearly ready to launch, and the others, I am informed, will be finished at the rate of two a month until the order is completed.

The lessees also report that they have been buying some boats and refitting them for their service.

They say that with favorable weather this winter, they ought to have the plant in operation between Cincinnati and Dayton by the 15th of May, 1902.

The entire work between Cincinnati and Toledo, a distance of 244 miles, is to be finished and put into actual operation, according to the terms of the contract, by the year 1907. Two and one-half years from March, 1901, is given in which to complete the work from Cincinnati to and including the corporation of Dayton, a distance of 68 miles.

In concluding this part of my report, I desire to say that the stipulation in the agreement that, "Thomas N. Fordyce and his assigns are to pay to the State of Ohio any and all expenses caused by reason of any construction work done by the Board of Public Works at the request of said Fordyce and his assigns to accommodate his plant," has been fully secured by the filing of a bond in the sum of \$25,000.00 guaranteeing the fulfillment of that part of the agreement, the said bond bearing date of April 9, 1901, and on file in your office.

To the credit of said Fordyce and his assigns, I beg to say that they have permitted a liberal construction by your department of this provision, and have more than satisfied all demands that have been made in the premises.

ABSTRACT OF RECEIPTS AND EXPENDITURES FOR THE FISCAL YEAR.

For a full and complete account of the expenditures and receipts of the Department for the fiscal year I beg to refer you to your Secretary's report of even date herewith, showing the total actual collections of canal tolls and rents for the year to be \$87,404.02, being about the same amount of earnings as the average for the past four years.

The expenditures for repairs and improvements during the year, as shown by said report, amount to \$216,241.90, and were met by collections of tolls and rents and by direct appropriations by the General Assembly.

CONDENSED STATISTICS.

The following statement shows amounts allowed for ordinary repairs and maintenance of the canals for each separate sub-division, with name of the Superintendent of Repairs in charge.

OHIO CANAL.

Name of Superintendent.	Amount expended.	Length of Sub-Div.	Terminals.
Wm. M. Hiltabidle.....	\$30,993 78	76 miles....	From Cleveland to Wild Cat Basin.
Charles H. Geidel.....	14,191 80	86 miles....	From Wild Cat Basin to Dresden.
F. C. Dietz.....	12,673 32	70 miles....	From Dresden Side Cut to Lockb'rne.
Geo. H. Watkins.....	24,937 09	100½ miles..	From Lockbourne to Portsmouth.
Totals	\$82,795 99	332½ miles..	From Cleveland to Portsmouth.

MIAMI AND ERIE CANAL.

Name of Superintendent.	Amount expended.	Length of Sub-Div.	Terminals.
Charles Cooper	\$23,823 40	57 miles....	From Cincinnati to Carrollton.
John O'Connor	18,298 13	66 miles....	From Carrollton to New Bremen.
H. W. Meacham.....	23,484 91	121 miles...	From New Bremen to Toledo.
Totals	\$65,606 44	244 miles...	From Cincinnati to Toledo.

DEFIANCE AND GRAND RAPIDS DAMS.

For a description of these dams and the necessity for their extensive repairs, I beg to refer you to my last annual report.

Abstract of money expended in repairs and work done by contract for which your Honorable Board set aside Twelve Thousand Dollars (\$12,000.00.)

All the accounts, covered by monthly abstracts, were reported and allowed, paid, and filed in this office, and appear as follows:

Abstract for June, 1901.....	\$590 16.
Abstract for July, 1901.....	4,087 12
Abstract for August, 1901.....	2,409 94
Abstract for September, 1901.....	1,218 24
Abstract for October, 1901.....	3,591 38
Total	\$11,896 84
Balance in fund.....	103 16
Grand total	\$12,000 00

The following items show the expenditures from this sum for the Providence Dam.

Hardware	\$324 40
Lumber	3,279 49
Stone	536 06
Labor	1,234 49
Total	\$5,374 44

The following items show the expenditures from this sum for the Independence Dam.

Hardware	\$369 58
Lumber	3,379 61
Stone	897 09
Labor	1,876 12
Total	\$6,522 40

STONE REVETMENT WALLS AT CINCINNATI.

Contract was entered into with Henkel & Sullivan, General Contractors, Cincinnati, Ohio, on December 12, 1900, for the building of revetment walls on both sides of the Miami and Erie Canal from Lockport Basin to Elm street. This work having been previously advertised and bids having been received for same, the contract was awarded to the above mentioned firm who were the lowest and best bidders.

On April 18, 1901, another contract was entered into with the same contractors under the conditions above described, for building similar walls from Elm street to Liberty street.

The foundation of the walls was six feet below standard elevation of water in the canal, and the bottom course was of concrete composed of one part natural cement, two parts sand and four parts broken stone. This course was eighteen inches deep by four feet three inches wide. On this was built masonry classification No. 2, consisting of sandstone rock range work in courses not less than eight inches thick.

The cross-section varied in different parts of the work, but was usually four feet high by four feet wide.

The masonry classification No. 1, which was the top part of the wall, consisted of dimension block sandstone of best quality arranged in two twelve inch courses or one eighteen inch course thirty inches wide, the height of these courses varying with the height of the walls.

The wall on the towing path side of the canal was eight feet high and on the berme bank side eight and one-half feet high; the top or coping course being twelve inches thick by twenty-four inches wide.

Street retaining walls were also built on the north side of the towing path in the following squares to-wit: Main street to Walnut street; Walnut street to Vine street; Vine street to Race street; and Elm street to Plum street.

These walls were similar in construction to the revetment walls, but were of less cross-section. They were finished with a coping eight inches by twenty-six inches.

The quantities involved in this work are about as follows, to-wit:

Concrete	2,400 cubic yards.
First-class masonry.....	2,900 cubic yards.
Second-class masonry.....	5,100 cubic yards.
Coping.....	1,500 lineal feet.
Excavation	15,000 cubic yards.

The average cost of the above work was about \$5.20 per lineal foot.

The actual work as constructed by the contractor has not in some places conformed to the full cross-section prescribed by the plans and specifications, which will be taken into careful consideration in computing the quantities for the final estimate.

The work to this date is about completed, lacking the dressing of the coping and the pointing of the walls.

DREDGING AT CINCINNATI.

The contract for dredging the Miami and Erie Canal, provided for by the appropriation of \$15,000.00 made by the 74th General Assembly, for the years 1901 and 1902, was awarded to Folz & Jonte, General Contractors of Cincinnati, said contract covering only that portion of the canal "between Lockport Basin in

Cincinnati and the lower lock at Lockland," in accordance with the advertisement for said work of January 9, 1901.

The following prices were agreed to, to-wit:

For dredging per cubic yard, the excavated material to be hauled from dredge to spoil bank (average haul by scow about $2\frac{1}{2}$ miles) 39 cents.

For dredging per cubic yard, the excavated material to be deposited directly from dredge on spoil banks and slopes of canal, 17 cents.

Unfortunately for the canal and for the contractors, owing to certain experiments made by said contractors in operating a dredging machine of their own pattern, and delay in the work caused by taking the water out of the canal for the construction of stone revetment walls, the dredging has been greatly retarded, so that work only to the extent of \$7,847.52 has been done to date, as shown by my estimate of November 11, 1901, leaving the balance of the \$15,000.00 yet to be expended.

By written agreement authorized by you bearing date of July 11, 1901, State Dredge No. 6 was rented to said Contractors for the sum of five dollars (\$5.00) per day for the actual time during which said dredge should be employed by said firm.

It is expected that the entire work provided for in the agreement will be finished during the early spring.

LOCKLAND AND CARTHAGE AQUEDUCTS.

Agreeable to an advertisement, contracts were entered into with the King Bridge Company of Cleveland, for the building of the aqueducts at Lockland and Carthage, said contracts being dated March 11, 1901, and on file in this office; the Lockland aqueduct of two spans of 45 feet each to cost \$2,865.00 complete, the Carthage aqueduct of two spans, one 45 feet in length and the other 75 feet in length, to cost \$5,695.00; the trunk of both aqueducts to be 20 feet clear in width.

In connection with the building of these aqueducts and in compliance with the request of Thos. N. Fordyce and his assigns, heavy plate girder towing bridges, of a sufficient capacity to carry the electric carriages of said Fordyce and his assigns, were contracted for by the State, all to cost \$2,900.00, as shown by contracts entered into on March 11, 1901. A good and sufficient bond was filed by said Fordyce and his assigns for the payment of this amount.

The aqueducts, at this date, are about completed, and are of substantial workmanship and capacity.

SPECIAL APPROPRIATION FOR MIAMI AND ERIE CANAL.

The special appropriation made for 1901 and 1902 by the General Assembly, amounting to \$75,000.00, will be applied to the payment of the construction of the aqueducts and stone work connected therewith and the stone revetment walls referred to, in amounts of about \$15,000.00 and \$60,000.00 respectively, the earnings of the canal being used for the ordinary expense of operation.

BUCKEYE LAKE AND INDIAN LAKE PARKS.

With regard to the Licking Reservoir, containing 4,200 acres, situated in Licking, Fairfield and Perry counties, and the Lewistown Reservoir, containing 7,200 acres, situated in Logan County, which were dedicated and set apart, under certain restrictions, by the 72d and 73d General Assemblies for recreation and pleasure purposes, and to be known respectively as Buckeye Lake and Indian

Lake, I would respectfully recommend, as I have done heretofore, that the Legislature be asked for a special appropriation for improving and beautifying these parks, in order that the laudable purpose to which they have been dedicated may be dignified and promoted.

For both reservoirs I especially suggest the clearing away of stumps and the making of new channels in order that small pleasure steamers may safely navigate their waters. For Buckeye Lake I would recommend that a vacuum dredge pump be used in making channels, and that the waste material excavated in that process be deposited at any desirable point in the reservoir for the formation of new islands to be rented for the occupation of cottages.

I believe that with reasonable appropriations for these purposes, the reservoirs can be made a source of sufficient revenue for their support.

I also append hereto a summary statement or recapitulation of the receipts and expenditures of the several canals of the State, furnished by the secretary of your honorable board, as follows, to-wit:

Canals.	Land Sold.	Tolls.	Rents.	Totals.
Miami and Erie	\$1,086 00	\$12,860 15	\$53,284 45	\$67,180 60
Northern Division Ohio.....	250 00	4,606 02	10,331 77	15,187 79
Southern Division Ohio		498 95	4,536 68	5,035 63
Totals	\$1,336 00	\$17,965 12	\$68,102 90	\$87,404 02

For What Purpose.	Amount.
Amount of collections for fiscal year ending November 15, 1901.....	\$87,404 02
Add amount due from collectors, November 15, 1900.....	2,643 46
	\$90,047 48
Deduct amount due from collectors, November 15, 1901.....	3,030 54
	\$87,016 94
Add balance in treasury November 15, 1900	39,148 95
	\$126,165 89
General appropriations	82,000 00
Special appropriation for the improvement of the Miami and Erie Canal between Cincinnati and Dayton	50,000 00
Special appropriation for dredging the Miami and Erie canal between Cincinnati and Dayton	15,000 00
	\$273,165 89

SUB-DIVISION REPORTS.

For a description of new work and repairs made during the fiscal year, reference is hereby made to the following summary of each of the sub-divisions including cost of maintaining each, recommendations for betterment and maintenance, the name of each superintendent of repairs and section and dredge foreman with postoffice address and the time of service of each in the capacity designated, and such other information in relation to questions affecting the department as is deemed of interest.

In this connection I take great pleasure in calling your special attention to the carefully prepared annual report of each of your superintendents of repairs, on file in this office, showing the condition and operation of their several subdivisions.

In concluding this report by submitting herewith the reports of the subdivisions referred to, it again gives me pleasure to commend the integrity, energy and faithful service of your assistant engineer, secretary, clerk, and your several officers on the line of the public works, and to extend to your Honorable Board my thanks and the assurance of my appreciation of your kind consideration and encouragement at all times tendered me in the discharge of my official duties.

I also beg the pleasure of acknowledging in this report the kind and courteous treatment of the Canal Commissioners in my official connection with that department.

Respectfully submitted,

CHARLES E. PERKINS,

Chief Engineer of the Public Works of Ohio.

ANNUAL REPORT OF THE REPAIRS

Made on Subdivision No. one (1), Grand Division No. one (1), Ohio Canal, during the year ending November 15, 1901, by Superintendent of Repairs,

W. M. HILTABIDLE,

P. O. Address, Akron, Ohio.

FOREMEN.

Charles Hatch, Foreman Section No. 1, 16 years' service.....Peninsula, O.
J. I. Johnston, Foreman Section No. 2, 2 years' service.....Aultman, O.
John Moore, Foreman Section No. 3, 16 years' service.....Canal Fulton, O.
James Roach, Foreman dredge, 26 years' service.....Akron, O.

There are on this subdivision three (3) State repair boats, one steam dredge and tender or boarding boat, six draught animals, and one mud scow.

LOCKS.

Repairs were made on locks as follows; Eight-mile, Eleven-mile, Twelve-mile, Boston, Lonesome, Feeder, Deep Johnny Cake, Yellow Creek, Portage Upper, Clinton Upper and Lower, Fulton, Massillon, Navarre and Nos. 2, 3, 7, 8, 11, 14, 15, 17 and 20.

New walls were built as follows:

The new wing wall and gate recess on the towing path side of the Johnny Cake lock.

An entire new wall for chamber and wing wall on the berme bank side of Portage lower lock.

A new gate recess and wing wall on the berme bank side was built to the Clinton Upper lock.

Concrete was placed under Johnny Cake, Portage lower, Clinton upper, Navarre and the Eight-mile locks. All locks were cleaned free from debris and silt in the chambers.

LOCK GATES.

Three pairs of new gates were placed in position and others repaired where needed.

Six new mitre sills were placed in position.

New chafing planks were added where required.

New balance beams were supplied to replace the old ones. New gates are made and now ready to be placed in the lower end of the Lower Clinton lock.

CANAL BANKS.

The towing path bank between the Five-mile and the Twelve-mile locks was repaired and protected with rip rap stone from injury from the Cuyahoga river.

A large break caused by the high water in the Cuyahoga river above the Five-mile lock was repaired.

About four miles of the towing path and about two miles of the berme bank were raised an average of two (2) feet on this subdivision.

CULVERTS.

The culvert near the Six-mile bridge above the Five-mile lock was repaired with stone and concrete, as was the one on the Canal Fulton level.

All culverts on this subdivision were cleaned free of all debris three (3) times during the past season.

AQUEDUCTS.

The wing walls of the Eight-mile aqueduct were repaired. The north span of the Peninsula aqueduct was rebuilt and the south span and masonry were repaired.

The aqueducts at Johnny Cake and Wolf creek were each repaired and freed from drift and the abutment of the latter was protected with rip rap.

WASTE WEIRS.

The weirs at locks numbered 5, 7 and 10 and 21 and the Eight-mile, Eleven-mile, Boston lower and upper, Lonesome, Johnny Cake and Portage lower locks received needed repairs.

The high water waste weirs on this subdivision were each repaired.

WASTE GATES.

All the waste gates on this subdivision were repaired where needed.

FOOT BRIDGES.

New foot bridges were built during the past season as follows: At the Kettle-well, Red and at lock number six (6), and over the waste weir on the Navarre lock.

DAMS.

The dams at Pinery feeder, Peninsula, lock No. twenty-one (21), Summit feeder, Wolf creek, Clinton, Canal Fulton and Millport each received needed repairs.

BOATS RAISED AND REPAIRED.

Nine sunken boats were raised during the past season on this subdivision.

State Repair Boats numbers one (1) and two (2), were each repaired. State Repair Boat number three (3) was painted.

DREDGING.

Hand dredge No. 1 removed bars and debris amounting to 1,600 cu. yds.

Hand dredge No. 2 removed bars and debris amounting to 1,050 cu. yds.

Hand dredge No. 3 removed bars and debris amounting to 1,600 cu. yds.

Bars and debris removed with wheel barrows and teams

with scrapers 1,700 cu. yds.

Total 3,300 cu. yds.

In addition all bars and debris on the levels of the canal from locks No. 1 to 16 were cleaned out.

WEEDS AND BRUSH.

The weeds were cut from the towing path the entire length of this subdivision, a distance of 76 miles, and on about 25 miles of the berme bank the weeds and brush were both cut.

FEED GATES.

The feed gates at Pinery feeder, Peninsula feeder, lock 21 feeder and at Clinton Guard lock were repaired.

New feed gates were put in at the Millport feeder.

BRIDGES.

All State foot and towing bridges on Section No. 1 were repaired with new plank.

A new bridge was built at the Goosepond waste weir and at the Seventeen-mile (17) lock.

All bridges on Section No. 2 were repaired and a new one built at lock No. seven (7).

All bridges on Section No. three (3) were kept in repair and a new bridge was built at the lower lock at Clinton.

MISCELLANEOUS MATTERS.

About forty (40) new snubbing posts were placed in position.

Twenty-four (24) new valves (or wicket gates) were put in place.

The rubbish was removed from the canal bank in Akron three times during the past season.

The Tuscarawas feeder was cleaned out with the hand dredge a distance of one (1) mile, and the brush and weeds cut from the banks the entire length of the feeder.

Four new mitre sills were made and kept in reserve for future use.

REPAIRS NEEDED.

The towing path bank should be raised about eighteen (18) inches a distance of thirty (30) miles, and the berme bank should be raised about twelve (12) inches a distance of fifteen (15) miles.

About forty (40) miles of the canal of this subdivision should be dredged.

New wing walls should be built at the Eight (8) mile lock and also at lock No. 11, Lonesome and the upper Portage locks. Several locks need the main or chamber walls repaired.

Ten (10) pairs of new gates are required, and twenty-five (25) new balance beams are needed to replace the old ones.

State Repair boats on Sections Nos. one (1) and two (2) and the mucker all need repairing.

ANNUAL REPORT OF THE REPAIRS

Made on Subdivision No. 2, Division No. 1, Ohio Canal, during the year ending November 15, 1901, by Superintendent of Repairs,

CHARLES H. GEIDEL,
P. O. Address, Coshocton, O.

L. P. Wilson, foreman of repair boat No. one (1), Newcomerstown, O., 16 years' service.

A. L. Norman, foreman repair boat No. two (2), Roscoe, O., one year's service.

William Squire, engineer dredge No. 7, Roscoe, O., 6 months' service. Being successor to Alfred Shorman, who resigned July 1, 1901.

There are on this subdivision two (2) repair boats, one (1) boarding boat, one (1) steam dredge, one (1) steam pump, three (3) horses and one (1) mule. There are also numerous tools and appliances, an inventory of which I have sent you on a separate sheet.

AQUEDUCTS.

There are four aqueducts on this subdivision, as follows:

Bolivar aqueduct, three spans, total length of 170 feet.

Orange aqueduct, one span, total length of 30 feet.

Roscoe aqueduct, five spans, total length of 310 feet.

Dresden aqueduct, three spans, total length of 140 feet.

LOCKS.

There are 28 lift locks on this subdivision, with an average lift of eight (8) feet, and four (4) guard locks, making in all thirty-two (32) locks.

DAMS.

There are also four (4) dams, one at Zoar, one near Trenton, one on the Walhonding river, six (6) miles west of Roscoe, and one on Sugar creek near Canal Dover.

REPAIRS MADE.

AQUEDUCTS.

The north abutment of the Roscoe aqueduct was repaired with stone and cement, and a portion of the trunk was replanked.

BARS REMOVED.

There were bars removed on this subdivision forming a total of 5,584 cubic yards.

BANKS RAISED.

There was used 1,564 cubic yards of earth in making repairs of breaks in the canal banks on this subdivision. About 1,200 lineal feet of towing path had been washed away by the floods from one (1) to two (2) feet in depth, which was repaired by the State and county jointly.

BRIDGES.

The towing bridge at Orange aqueduct was repaired, and new bridges were built over sluiceways at Adams' Mills and at Wild Turkey.

BRUSH CUT.

Brush was cut from thirty-seven (37) miles of towing path, and seven (7) miles on the berme bank on this subdivision.

CULVERTS.

Twelve (12) feet in length of the culvert on the Six (6) mile level below the Zoar Mill was carried away by the April flood, and was rebuilt with stone and timber.

Drift was removed from all the culverts on the subdivision.

DAMS.

The dams at Zoar and Sugar creek were greatly damaged by the flood in April last. The dam at Zoar was repaired by drift bolting heavy timbers to the piling, and repaving with rip rap stone and filling the interstices with gravel.

The dam at Sugar creek was repaired by replacing the rip rap stone and putting gravel in the interstices the entire length of the dam.

The stone was replaced on the Tuscarawas dam.

The Walhonding dam was repaired with 200 feet of plank sheeting and 75 cubic yards of rip rap stone and regaveled twice.

DOCKS.

One new dock was built for the New Castle Coal Company at New Castle. One (1) for the Grimes Coal Company, one mile north of Canal Dover. One (1) for the Clover Hill Coal Company on the Six (6) mile level above Canal Dover.

All the docks on the subdivision were cleaned.

DREDGING.

Dredge No. 7 was started on the 22d day of last April, and Landerman's, Clark's Wilson's, Wolfe's and Dawson's bars and those at the upper and lower Adams' Mill lock in addition to raising the towing path north of Conesville; making a total of 58,728 cubic yards of earth removed.

LOCKS.

The wing walls of locks numbered 17, 23 and 24 were repaired with stone, brick and cement.

The gate recess in the wall of lock No. 13 was rebuilt with timber and concrete.

The walls of locks numbered 8, 9, 20, 21 and 24 were set back and lined up the entire length and pointed with cement.

Lock No. 18 received new tumble walls of stone and timber.

A protection wall was built at lock 21, using 40 cubic yards of stone.

Locks numbered 22, 24, 25, 28 and 29 were cleaned of mud and silt.

LOCK GATES.

Locks numbered 7, 10, 13, 14, 15 and 29 each received one pair of new gates.

Locks numbered 7, 10, 14, 15, 27 and 29 received new balance beams.

The guard lock gates on Trenton and Walhonding feeders received the needed repairs.

FLOOD GATES.

New flood gates and side walls were built at Negro basin and at Adams' Mills.

WASTE WEIRS.

The waste weir at Canal Dover was repaired, using 40 cubic yards of new rip rap stone and the old stone replaced and the weir was graveled a distance of 240 lineal feet.

The waste weir at One Mile bridge was raised by the addition of 20 cubic yards of stone and regaveled.

The waste weir at lock No. 17 was raised, using 10 cubic yards of stone and regaveled.

The waste weir at Newcomerstown was rebuilt, using 20 cubic yards of new stone, and the old stone were replaced and lined.

The waste weir at Adams' Mills was rebuilt, using 30 cubic yards of stone.

CATCH BASINS.

One new catch basin was built on the Orange level above Emerson's lock, and the one on the Trenton level was rebuilt. The catch basin at One-mile bridge near Lockport was repaired, using 40 cubic yards of stone, and about 600 cubic yards of silt was removed.

All catch basins on this subdivision were cleaned.

REPAIRS NEEDED

AQUEDUCTS.

The aqueduct at Roscoe over the Walhonding river should be repaired by replacing the broken angle blocks at the end of the braces with new and stronger ones, and putting in new timbers in the upper chords, thus replacing those timbers that are decayed, and by covering the top chords to protect them from the weather. The new aqueduct at Dresden should have a similar covering over the top chords.

TOWING BRIDGES.

A new towing bridge should be built at Hardesty's mill at Canal Dover.

CULVERTS.

The east end of the culvert on the Sugar creek level north of the guard lock should be rebuilt.

DAMS.

The Sugar creek dam should be rebuilt, and about 75 piling should be driven above the dam to prevent boats from drifting on to the dam. It is at present in a rather dangerous condition.

The east half of the Trenton dam should be rebuilt.

LOCKS.

Locks 17, 18, 19, 21 and 25 each need one pair of new gates. The guard lock at Walhonding dam needs new gates and new mitre sills. Nearly all the locks on this subdivision need new mitre sills and the floors should be repaired.

FLOOD GATES.

New flood gates should be built at the Sugar creek dam.

WASTE WEIRS.

A new waste weir should be built on the Six-mile level south of Zoar.

DREDGING.

About three (3) miles of the Walhonding feeder should be dredged. All levels of the canal north of Roscoe need more or less dredging.

MISCELLANEOUS.

The boarding boat, "Capt. E. L. Lybarger," needs extensive repairs.

The dredge needs three (3) new anchor posts, one ash pan, one hoisting chain, one set of engine timbers, one backing chain, and one friction hub for the backing chain drum.

A very neat and commodious repair boat was built by our foreman, and employes at a cost of \$591.97.

In closing my report it gives me great pleasure to say that traffic is steadily increasing, and that there are not enough freight boats to carry the amount of freight to be sent.

A new coal mine was opened on the line of the canal one mile north of Canal Dover.

Though this was a season of great drought, the stage of water in the canal has been maintained for boating throughout the past season.

ANNUAL REPORT OF THE REPAIRS

Made on Subdivision No. three (3), Grand Division No. two (2), Ohio Canal, during the year ending November 15, 1901, by

F. C. DIETZ, *Supt. of Repairs*,
P. O. Address, Zanesville, O.

FOREMEN.

Alexander Richardson, Carroll, O., 21 years' service.
S. W. Brown, Newark, O., 4 years' service.

TOOLS AND APPLIANCES.

There are two (2) repair boats, one (1) scow (12x30 feet), and three horses, besides numerous tools and appliances on this subdivision, a list of which I have forwarded to your office.

LOCKS AND LOCK GATES.

Since my last report eleven (11) of the fifty-three (53) locks on this subdivision have received substantial repairs to the wall and tumbles.

There were eleven (11) new lock gates made and placed in position, and eleven (11) lock gates repaired.

Twenty-one (21) new balance beams were made and placed on the lock gates, and others repaired where needed.

Five new mitre sills were made and placed in the locks and five others repaired.

New floors were placed in some of the locks where needed.

CANAL BANKS.

The canal banks from Lockbourne to Newark received considerable repairs by raising them where needed.

CULVERTS.

The culverts east of Carroll received repairs by building a new south end with the old material and brick and cement.

AQUEDUCTS.

Extensive repairs were made to the aqueduct over Walnut creek, east of Carroll, by strengthening and placing new supports to the trunk.

ANNUAL REPORT

GRASS CUT.

The water grass has been cut and removed from the canal several times from Lockbourne to the north fork of Licking creek at Newark.

BRUSH AND WEEDS.

Trees, brush and weeds were cut from the canal banks and burned from the north outlet lock at the Licking reservoir to Lockbourne, including the towing path through the reservoir. Also from Black Hand to the Dresden side cut.

BOATS.

The State repair boat at Newark was thoroughly repaired and placed in good serviceable condition.

MISCELLANEOUS MATTERS.

Brush was cut from the banks and grass was cut from the channel of the north fork of Licking creek feeder.

The towing path through the Licking reservoir was repaired where washed by the waves and weakened. The embankment on the north side of the Licking reservoir was repaired where needed. The canal east of Newark was cleared of weeds.

REPAIRS NEEDED.

LOCKS AND LOCK GATES.

There are twenty-eight (28) of the fifty-three (53) locks on this subdivision that need repairs made to the walls, floors, mitre sills, tumbles, lock beams and some new lock gates and other gates repaired.

CANAL BANKS.

The breaks in the canal banks between Newark and Dresden, some of which are quite extensive, should be repaired, and in some places the canal banks need to be raised to a proper height.

CULVERTS.

The culverts under the canal between Walnut creek and Licking reservoir need repairing, some require extensive repairs, others but little.

The culverts between Newark and the Dresden side cut need repairing to a greater or less extent, and a few should be rebuilt and enlarged so that they may carry off the water in time of flood, and thus prevent breaks in the canal banks by the backed up water running into the canal.

AQUEDUCTS.

A new aqueduct should be built over the north fork of Licking creek in Newark; a new aqueduct should be built over the Watomika above Frazesburg.

WASTE WEIRS.

A new waste weir should be built on the North Fork feeder and several waste weirs east of Newark need repairs.

WASTE GATES.

Two new waste gates should be built on the Nine (9) mile level east of the Licking reservoir, and one should be built at Basil in order to wash out of the canal the rapidly accumulating silt on that level.

DAMS.

The dam across the Licking at Black Hand should be rebuilt in order to restore the water to the canal from that point to the Dresden side-cut.

The dam on the Pawpaw creek at Baltimore should be rebuilt to supply feed water at that point.

The dam across the North Fork of Licking creek above Newark should be rebuilt in order to furnish feed water for the canal from Newark north.

DREDGING.

There are numerous places between Lockbourne and Newark where the canal should be dredged to admit the free passage of heavily laden boats.

The large bar at Basil could be washed out into Walnut creek if waste gates were placed in the canal banks on that level.

The bars in the canal east of Newark could be removed by using teams and scrapers.

RESERVOIR EMBANKMENT.

The north embankment of the Licking reservoir will need some repairs the coming season.

CATCH BASINS.

Several catch basins should be built in various places on this subdivision of the canal.

TOWING BRIDGES.

Towing bridges are needed at Lockbourne, Lockville and at lock No. 15, at Licking creek.

MISCELLANEOUS MATTERS.

New head gates are needed at the head of the North Fork feeder and at the feeder at Pawpaw creek.

The channels of these feeders should be cleaned out in order to afford facilities for a good flow of water when turned in.

Protection should be placed between Walnut creek and the canal towing path, near Basil, by driving piling and filling behind with brush and stone. The present piling protection having decayed and become weakened by age, having been in place about fourteen (14) years.

ANNUAL REPORT OF THE REPAIRS

Made on Subdivision No. Four (4), Grand Division No. Two (2), Ohio Canal, during the year ending November 15, 1901, by Superintendent of Repairs,

GEORGE H. WATKINS,
P. O. Address, Wakefield, O.

This subdivision includes the Columbus feeder from Columbus to Lockbourne, and the Ohio canal from the latter place to the Ohio river at Portsmouth, a distance of one hundred and three-fourths ($100\frac{3}{4}$) miles.

STRUCTURES ON THIS SUBDIVISION.

There are on this subdivision 29 lift locks, 3 feed and 2 guard locks, 5 dams, 38 culverts, 12 aqueducts, the latter varying in length from 34 to 440 feet. The total length of the aqueducts is 1,920 feet.

There are three (3) repair boats, one (1) dredge, and one (1) dredge tender or boarding boat, one (1) span of mules, and two spans of horses, one (1) steam pump, one (1) engine and pile driver.

W. H. Kirkendall, foreman of repair boat No. 1, Circleville, O. This section extends from Columbus to Westfall, a distance of 32 miles; 15 years' service.

Pinkney Brewer, foreman of repair boat No. 2, Chillicothe, O.; one (1) year and nine (9) months' service. This section extends from Westfall to Waverly, 38 miles.

Charles W. Watkins, foreman of repair boat No. 3, Waverly, O.; one year and eight months' service. This section extends from Waverly to the Ohio river.

LOCKS.

The walls of the lock at Circleville aqueduct, at Fourth and Fifth streets, in Chillicothe, the lower Two-mile above Circleville feeder, both upper and lower locks at Lumbeck's, and the upper Peepee lock were aligned and received such other repairs as were needed. The guard lock walls at Jasper were repaired, and a new floor was laid in the Circleville aqueduct.

LOCK GATES.

There were fourteen (14) new lock gates made and placed in position. Thirteen (13) lock gates were repaired, seven (7) new balance beams were placed in position, and new cribbing and part of a new floor were placed in position at the upper Peepee lock.

CANAL BANKS.

Seven breaks in the canal banks, varying from ten (10) to thirty (30) feet in length, and from four to eight feet in depth were repaired.

One thousand (1000) lineal feet of canal banks were raised on the Columbus feeder and on the Circleville level one and one-fourth ($1\frac{1}{4}$) miles of towing path was raised below the Five (5) mile bridge, and about one thousand lineal feet of towing path was raised on the Eighteen (18) mile level between Circleville and Chillicothe. The canal banks were repaired in numerous places, and the dredged earth leveled from Millport southwardly to the Six (6) mile bridge.

CULVERTS.

The culverts at Linton's, Weigan's, above Millport, Hedges', Dry Hollow,

at Eighteen (18) mile lock, Crow's Dry run, and the two at Simpson's were each cleaned free of debris.

AQUEDUCTS.

The aqueducts at Circleville, Paint creek, Sharonville, Waverly and Sunfish each received needed repairs.

WASTE GATES.

The waste gates on the Columbus feeder, at Chillicothe, and those on the Two (2) miles south of Waverly each were repaired.

DAMS.

The dams at Columbus, Lockbourne, Millport, Circleville and Three locks were repaired as needed.

The latter received the most extensive repairs.

DREDGING.

The Circleville level was dredged a distance of two and one-half (2½) miles, removing bars and raising banks.

GRASS CUT.

Grass was cut a distance of three (3) miles on the Circleville level twice during the season, and a length of ten (10) miles on the Jasper and Bear creek levels was cut once during the past season.

BRUSH AND WEEDS.

The brush and weeds were cut from the banks of the canal the entire length of the subdivision.

BOATS.

Repair boat No. 1 was caulked and painted.

Repair boat No. 2 received a new bottom, gravel deck, rudder post, a new floor amidships, and in addition was caulked and painted.

DOCKS AND REVETMENTS.

The wharf docks at Columbus and Circleville were repaired. Revetments were placed under Groce's bridge on the eighteen (18) mile level and under the State's bridge on the same level.

CATCH BASINS.

Three catch basins were constructed at School House bar on the eighteen (18) mile level.

TOWING BRIDGES.

The towing bridges at the Circleville, Deer creek and Stony creek aqueducts were each repaired.

One hundred and seventy-six (176) lineal feet of the towing bridge at the Paint creek aqueduct was rebuilt, and new towing bridges were built at the Sharonville and Waverly aqueducts.

MISCELLANEOUS MATTERS.

Cleaned out the silt above the Columbus guard lock four (4) feet in depth the full width of the lock a distance of fifty (50) feet above the lock.

Washed out the silt in the canal feeder from the guard lock to Green Lawn bridge. Reroofed and repaired the lock tender's house at the Four (4) mile lock.

Washed out silt from a part of the Circleville level and removed the bars and debris from the canal in Circleville.

REPAIRS NEEDED.

The lift lock at Lockbourne should be unwatered and new floor and new mitre sills placed in it, and there should be about two (2) feet of the top of the lock walls rebuilt.

The lift lock at Millport needs about one-half of each wall rebuilt and new floor and mitre sills added.

The abutments of the guard lock at Millport should be restored.

The south half of the walls of the Two-mile lock should be torn down and rebuilt.

About one-half of the wall of the upper Marfield lock on the towing path side should be torn down and rebuilt; the wing wall on the berme bank side of the lower Marfield lock should be rebuilt with new masonry.

The Fifth Street lock in Chillicothe needs a new floor.

The walls of the Waverly, upper Peepee, Eighteen-mile, Hordth's, Powder Mill and the upper lock at Union Mills, need repairing.

One new mitre sill is needed at the upper Peepee, two (2) at the lower Peepee, two (2) at the Eighteen (18) mile, and one at Hordth's locks.

LOCK GATES.

Sixteen new lock gates are needed on this subdivision.

CANAL BANKS.

The banks of the canal need raising on the eighteen (18) mile level, and same are now being raised with dredge.

CULVERTS.

A new culvert is needed under the Columbus feeder at the Lindsay farm. A number of culverts on this subdivision are too small to carry off the water of the streams in time of flood.

AQUEDUCTS.

The aqueduct at Circleville needs new sides and posts. Yellow Bud aqueduct needs new side posts, top and straining braces. Deer creek aqueduct needs cap, posts and straining braces renewed.

Stony creek aqueduct needs one new span and a wing on the berme bank side, and the other two spans need general repairing.

The aqueducts at Waverly and Sunfish should be rebuilt.

WASTE WEIRS.

New waste weirs should be constructed at Waverly and Higby's.

DAMS.

The dams at Lockbourne, Millport and Three locks need considerable repairing the coming season.

DREDGING.

The dredge should be kept in operation all the coming season.

BOATS.

Repair boat No. 3 should receive extensive repairs.

DOCKS.

A new dock is needed from Water to Walnut street in Chillicothe, and from the aqueduct to Emmett's bridge in Waverly.

MISCELLANEOUS MATTERS.

There is on hand enough heavy timber for repairing the Stony creek, Waverly and Sunfish aqueducts.

ANNUAL REPORT OF REPAIRS

Made on Subdivision No. 1, Grand Divisoin No. 3, Miami and Erie Canal, during the year ending November 15, 1901, by

CHARLES COOPER, *Supt. of Repairs*,
P. O. Address, Reading, Ohio.

This subdivision extends from Cincinnati to the lower lock at Carrollton, a distance of fifty-seven (57) miles.

FOREMEN.

R. V. Denny, foreman of carpenters, Middletown, O.; length of service, forty (40) years.

Wash Irwin, foreman of state boat No. 1, Cincinnati, O.; length of service, forty (40) years.

Henry F. Eyler, foreman state boat No. 2, Hamilton, O.; length of service, four (4) years.

William Sheedy, foreman of dredge No. 6, Franklin, O.; length of service, nineteen (19) years.

There are on this subdivision two (2) state repair boats, one steam dredge boat and one (1) tender or boarding boat, four (4) mules and numerous tools and appliances.

LOCKS.

The walls of the lock at the flouring mill at Lockland were aligned by setting back the walls.

The Crescentville lock walls were taken down a distance of eight (8) feet from the top and rebuilt, and the walls not removed were pointed with cement.

The locks and walls at Miamisburg and Franklin were raised, and the latter lock received a new floor and mitre sills.

The walls of the Greenland lock were re-aligned.

The upper lock at Hamilton was repaired by putting in new mitre sill, re-floored, and the upper jaws rebuilt.

The mitre sills of the Rialto lock and the mitre sills in two locks at Lockland were repaired, and the lower lock at Lockland was refloored.

LOCK GATES.

Two new gates and new balance beams were made and placed in position at Franklin.

CANAL BANKS.

The low banks on the twelve (12) mile level, on the Sunfish level above Middletown, on the six (6) mile level above Hamilton, and on the eight (8) mile level below Hamilton, were raised and the banks at the Cincinnati Workhouse were repaired with broken stone.

CULVERTS.

The culverts two miles south of Crescentville, at Willow Patch, and at Holwegan's were cleaned out twice and the latter repaired.

AQUEDUCTS.

The aqueducts at Amanda and Port Union were repaired, and the aqueducts at Carthage and Lockland were rebuilt.

WASTE GATES.

The waste weirs at Crescentville, on the Sunfish level, Franklin level, on the six and eight-mile levels, and at the flouring mill at Lockland were repaired, and the first named was raised.

WASTE GATES.

The waste gates on the Twelve-mile level, and at the elbow of the canal in Cincinnati, and those between Main and Sycamore streets in Cincinnati, were renewed.

The waste gates at Lockland and the gates at Hamilton and on the Greenland level were repaired, and the masonry walls were repaired at the latter.

FOOT BRIDGES.

New foot bridges at the Miamisburg, Crescentville and Lockland locks were built, and several other bridges were repaired where necessary.

DAMS.

About one hundred and fifty (150) feet of the upper apron of the Middletown dam was rebuilt.

DREDGING.

There were 34,075 lineal feet of the canal on this subdivision dredged during the past season.

BRUSH AND GRASS CUT.

Grass, brush and weeds were cut from the canal from Rialto to Cincinnati where needed, on the whole subdivision, and on the berme bank on the Sunfish, Franklin and Greenland levels.

BOATS.

State repair boats Nos. 1 and 2, dredge No. 6, and the boarding boat for the latter were repaired.

DOCKS.

Docks were placed in the upper and lower basins at Lockland.

The docks in Cincinnati and along the line of the canal where needed, were repaired.

CATCH BASINS.

Five (5) catch basins on the Franklin and Sunfish levels were repaired and all the catch basins on the Franklin, Sunfish and Greenland levels were cleaned.

TOWING BRIDGES.

New towing bridges across the feeder above Middletown and at the aqueduct at Amanda were built, and the towing bridges at Hamilton and Port Union were repaired.

MISCELLANEOUS REPAIRS.

Cheapside from Court street to Broadway, in Cincinnati was cleaned, and removed the debris from the canal between Twelfth and Court streets in Cincinnati removed six (6) times during the past season.

New snubbing posts were placed where needed at the locks on this subdivision.

The lock tender's houses at Middletown and Franklin were newly roofed, plastered, papered and painted, and the lock tender's house at Sunfish and the State House were partially papered.

Debris was removed from the canal at the starch factory in Lockland.

NEW WORK.

The new work on this subdivision consisted in building new walls, one on each side of the canal, from the canal elevator to Liberty street, done by contract, let to Henkel & Sullivan; this work is now nearly completed, and in the building two new aqueducts, one over Mill creek at Carthage, and the other over the same stream at Lockland, and in strengthening and repair of the abutments and piers of these aqueducts. The building of the aqueducts was done by contract, let to The King Bridge Company, of Cleveland, and the work on the abutments and piers to the aqueducts was done by the State's force at a cost of over three thousand dollars. This work has been completed.

A contract was let to Folz & Jonte to dredge the canal in Cincinnati to a depth of five feet; this work is still in progress.

The above mentioned improvement was done under and paid for by an appropriation made by the last General Assembly for the improvement of the Miami and Erie canal between Cincinnati and Dayton.

REPAIRS NEEDED.

LOCKS.

The locks at Middletown, Amanda, upper lock at Hamilton, and the lock at the flouring mill at Lockland should be rebuilt.

LOCK GATES.

New lock gates are needed at the Crescentville, Franklin, Greenland level and the Lockland locks.

CULVERTS.

The triple arch culvert on the Franklin level should be substantially repaired or rebuilt.

The culvert at Holwegan's should be enlarged.

AQUEDUCTS.

New aqueducts are needed on the Sunfish level at Crane's run, Amanda, Crescentville and at South Hamilton over Crawford's run.

WASTE WEIRS.

Several waste weirs on this subdivision should be replaced with new ones.

WASTE GATES.

New waste gates are needed on the Greenland level and on the Six (6) mile level below Crescentville.

DAMS.

A new abutment is needed at the south end of the Middletown dam. There should be one hundred and fifty (150) feet in length of the upper apron of the same dam renewed.

DREDGING.

Considerable dredging should be done between Rialto and Lockland, and the twelve (12) mile level needs considerable dredging.

BOATS.

The boarding boat attached to dredge No. 6 is in a worthless condition. I recommend that a new boat be built to replace repair boat No. 1 (1), and that No. one be attached to dredge No. 6 as a boarding boat.

REVETMENTS.

Considerable revetment should be placed between Mohawk and Clifton bridges.

CATCH BASINS.

There should be several additional catch basins built on this subdivision.

TOWING BRIDGES.

There should be new towing bridges built at Port Union, Hamilton and Miamisburg.

ANNUAL REPORT OF REPAIRS

Made on Subdivision No. 2, Grand Division No. three (3), Miami and Erie Canal, during the year ending November 15, 1901 by Superintendent of Repairs,

JOHN O'CONNOR,
P. O. Address, Dayton, O.

This subdivision extends from West Carrollton to New Bremen, a distance of seventy-eight (78) miles, and also includes the Lewistown and Loramie reservoirs.

FOREMEN.

Hugh Brennan, foreman repair boat No. 1, at Dayton, O.; nine (9) years' service.

Edward McConnell, foreman repair boat No. 2, Piqua, O.; twenty-six (26) years' service.

Thomas McDermott, foreman dredge No. 4, Dayton, O.; twelve (12) years' service.

James Burt, carpenter, Lockington, O.; thirty-one (31) years' service.

LOCKS.

The walls were aligned in locks Nos. 5, 8, 9, 12, 13, 23 and 25.

In lock No. 22 the east wall was rebuilt the entire length and five (5) feet in depth on the upper part.

LOCK GATES.

Six (6) pairs of gates were made and placed as follows: One pair was placed in locks numbered 5, 16, 24 and 25, and two pairs were placed in lock No. 23.

Locks numbered 3, 7, 17, 19 and 23 received needed repairs.

CANAL BANKS.

The canal banks below Piqua, a distance of 700 feet, and north of Tippecanoe a distance of 459 feet were raised.

CULVERTS.

Repairs were made on Snyp's culvert on the Summit, and also on the culvert at Holt's creek.

AQUEDUCTS.

Needed repairs were made on the Lorámie, Lockington and Mad river aqueducts.

WASTE WEIRS.

The waste weirs at Piqua and Tippecanoe were repaired with stone and timber.

WASTE GATES.

The waste gates at Dayton, Troy and Piqua were repaired.

FOOT BRIDGES.

New foot bridges were placed at Dryden's, Picayune and at Three locks, and several other foot bridges were repaired.

DAMS.

The Mad river dam at Dayton received repairs of sheeting and filling with gravel.

The feeder dam at Piqua received similar repairs.

DREDGING.

Dredge No. four (4) removed bars and dredged between Dayton and West Carrollton until in August, when it was removed to Cincinnati.

ANNUAL REPORT

BRUSH AND WEEDS.

The brush and weeds were cut from the banks of the canal the entire length of this subdivision.

BOATS.

State repair boats Nos. one (1) and two (2) were placed on dock and caulked.

RESERVOIR BANKS.

About one mile in length of banks of the Lewistown reservoir were damaged by the storm of April 20th and 21st washing the embankment and carrying away some of the timber protection. The injured embankment was repaired with earth, and 45,000 feet of lumber.

A revetment of timber, 500 feet in length, was placed in the reservoir embankment near Lakeview for protection.

CATCH BASINS.

All catch basins on this subdivision were cleaned out twice during the season, and repairs made where needed.

TOWING BRIDGES.

Several towing bridges received needed repairs.

REPAIRS NEEDED.

LOCKS.

Lock No. 1 at New Bremen needs a thorough overhauling and to be partly rebuilt.

Several stone locks need have the top courses set back and aligned.

New mitre sills are needed in six (6) locks.

LOCK GATES.

Six pairs of new gates are needed on this subdivision.

CANAL BANKS.

The canal banks north of West Carrollton need raising a distance of three hundred (300) lineal feet.

CULVERTS.

Snyp's and Rumley's culverts on the Summit level, and Dryden's culvert south of Dayton, are each in a dangerous condition, and need considerable repairing.

AQUEDUCTS.

The middle span of the Miami aqueduct needs to be thoroughly overhauled and some new timbers added.

WASTE WEIRS.

The waste weir at Tippecanoe should be rebuilt and the one on the Four-mile level at Dayton, and the one at Piqua should each have considerable repairs made to them.

WASTE GATES.

New waste gates with stone walls should be built on the four (4) mile level north of Dayton, and at the bluffs south of Dayton.

DAMS.

The dam across the Great Miami river above Piqua should be rebuilt.

BOATS.

A new boat, as tender to dredge No. 4 should be built, as the State does not now own one.

FEED GATES.

The masonry of the feed gates at Port Jefferson should be rebuilt, as the temporary structure now there is unsafe in case of unusual floods.

RESERVOIR BANKS.

Five hundred lineal feet of the embankment of the Loramie reservoir needs to be repaired to protect it from damage from the waves in time of wind storms.

Eight hundred (800) piling 18 feet long and 8 inches in diameter, with 40,000 feet of lumber is needed to protect the banks of the Lewistown reservoir in time of storm and high water.

ANNUAL REPORT OF REPAIRS

Made on Subdivision No. 3, Division No. 3, Miami and Erie Canal, during the year ending November 15, 1901, by

H. W. MEACHAM,
Superintendent of Repairs,
Toledo, O.

This subdivision extends from New Bremen to Toledo, a distance of 124 miles, and includes one mile of the Wabash and Erie canal, the St. Mary's feeder, and the Grand reservoir.

FOREMEN.

The following is a list of the foremen regularly employed on this subdivision, also the postoffice address of each and the number of years employed:

S. E. Allman, Toledo, O.; 7 years' service.

J. R. Spencer, Delphos, O.; 16 years' service.

F. Bennett, St. Mary's, O.; 1 years' service.

J. W. Woodward, St. Mary's, O.; 5 years' service.

There are on this subdivision three repair boats, one steam dredge, two scows, four horses, two mules, besides tools and appliances, an inventory of which is on file in this office, all being the property of the State of Ohio.

LOCKS.

Locks Nos. 18 and 27 are new locks.

Locks Nos. 2, 3, 4, 5, 7, 8, 9, 12, 13, 14, 16, 28, 32, 35, 36, 37 and 38 each received necessary repairs.

Locks Nos. 45, 46, 47, 48, 49 and 50 were each unwatered and received new mitre sills and repairs were made to the floors.

LOCK GATES.

The gates at locks Nos. 3, 4, 5, 6, 8, 10, 11, 34, 35, 38, 45, 46, 47, 48, 49 and 50 each received necessary repairs, such as splices, sheeting, balance beams, etc.

Locks Nos. 20 and 23 received new gates.

CANAL BANKS.

The canal banks were repaired short distances between locks Nos. 1 and 2, 4 and 5, 10 and 11, 16 and 17, 25 and 26, 27 and 28, 28 and 29, and at locks Nos. 15, 18, 32, 33, 34, 47, at Boyd's, at Stone quarry above Waterville, and in the city of Toledo, also a short distance along the St. Mary's feeder.

CULVERTS.

The culverts between locks Nos. 10 and 11, 11 and 12, 14 and 15, 21 and 22, 28 and 29, below lock No. 30, and two culverts under the 18 mile level each received necessary repairs.

AQUEDUCTS.

The aqueducts crossing the St. Mary's river, Six-mile and Little Jennings creek each received temporary repairs.

WEIRS OR TUMBLES.

New weirs were placed at locks Nos. 34 and 47.

The weirs at locks 5, 6, 9, 18, 21, 29, 31, 32, 33 and 35 each received the necessary repairs.

WASTE GATES.

The waste gates above Waterville received needed repairs, and the waste gates above and below Napoleon were repaired as needed during the past season.

FOOT BRIDGES.

New foot bridges were placed at locks Nos. 3, 8, 17 and 48.

DAMS.

The dam across the Maumee river at Providence received extensive repairs, at a total cost of \$5,374.44.

The dam across the Maumee river at Independence received extensive repairs, also a new apron, at a total cost of \$6,522.40.

BRUSH AND WEEDS CUT.

The brush and weeds were cut from the towing path of the canal along the five (5) mile level below St. Mary's, and from Spencerville to Toledo.

BOATS.

The three (3) repair boats on this subdivision each received some needed repairs and were painted.

RESERVOIR BANKS.

The rip rap along the west bank of the Grand reservoir was placed in position where it had become displaced.

DOCKS.

The docks were repaired at locks Nos. 7, 10, 18 and in the city of Toledo.

TOWING BRIDGES.

The towing bridges crossing the St. Mary's feeder, Six-mile creek, Flat Rock creek, Maumee river, Rice's lock, and at Providence feeder received necessary repairs.

Two new bridges were placed along the four (4) mile slack water between Defiance and Independence dam.

MISCELLANEOUS REPAIRS.

The towing path along the Maumee slack water was freed from debris.

A new concrete weir was constructed at the Pekin mills at Waterville, O.

New stone protection walls were placed above the Providence feeder.

New rip rap protection was placed along the river bank below the Providence dam.

The debris was removed from the canal in the city of Toledo.

The State buildings at Defiance and Independence were repaired and painted.

The collector's office at Toledo and the State buildings at Miami and Delphos were painted.

REPAIRS NEEDED.

LOCKS.

Locks numbered 3, 5, 14, 21, 37 and 39 each should be rebuilt.

Locks numbered 16, 20, 28 and 36 need extensive repairs.

Locks numbered 44 and 52 being in proximity to the river, should be unwatered and the floors and mitre sills of each repaired.

LOCK GATES.

New gates are needed at locks numbered 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18, 24, 25, 26, 27, 28, 36, 40 and 41.

CANAL BANKS.

The banks of the canal for a distance of four (4) miles between New Bremen and St. Mary's, the entire length of the nine-mile level north of Delphos, and the banks of the canal in the city of Toledo should be raised, strengthened and protected with rip rap.

CULVERTS.

The culvert at Bloody bridge and two culverts under the nine-mile level should be enlarged — not being sufficiently large to carry off the water in times of heavy rains.

AQUEDUCTS.

New aqueducts are needed at the crossing of the St. Mary's and Auglaize rivers, and Six-mile, Big and Little Jennings creeks.

WEIRS OR TUMBLES.

Weirs or tumbles should be built new at locks numbered 4, 5, 6, 7, 9, 10, 11, 14, 15, 16, 18, 21 and 29.

WASTE GATES.

New waste gates are needed on the five (5) mile level below St. Mary's and on the twenty-four (24) mile level above Napoleon.

DREDGING.

The canal should be dredged the greater portion of the distance from New Bremen to Defiance and through the village of Napoleon.

BRUSH AND WEEDS.

The growing brush and weeds should be cut from the canal banks at least once during the next season.

REPAIR BOATS.

The repair boat "Samuel Bachtell" needs extensive repairs.

DOCKS.

New docks are needed at all the locks from No. 2 to 39, inclusive.

TOWING BRIDGES.

New towing bridges are needed crossing the St. Mary's feeder, Six-mile creek, Blue creek, and change bridges at Boyd's, and across the feeder at Providence. New stringers and floor are needed in the bridge crossing the Maumee river at Defiance.

CONDENSED STATISTICS.

LAND GRANTS MADE BY CONGRESS TO AID IN THE CONSTRUCTION OF CANALS IN THE STATE OF OHIO.

1st. Date of Grant, March 2, 1827. Object — To aid in opening a canal to unite at navigable points the Wabash river with Lake Erie (so far as same is in the State of Ohio.) Extent — A quantity of land equal to one-half of five sections in width on each side of canal. Grantee — State of Indiana, thence to State of Ohio, by joint resolution of State of Indiana approved February 1, 1834. Number of acres — 292,223.51.

2d. Date of Grant, May 24, 1828. Object — To aid in extending Miami Canal from Dayton to Maumee river. Extent — Quantity equal to one-half of five sections in width on each side of said canal. Grantee — State of Ohio. Acres — 438,301.32.

3d. Date of Grant, May 24, 1828. Object — To aid in the construction of canals in the State of Ohio. Extent — Five hundred thousand acres, to be selected from lands subject to private entry. Grantee — State of Ohio. Acres — 499,997.12. Total number of acres — 1,230,521.95.

MIAMI AND ERIE CANAL.

The Miami and Erie Canal is $244\frac{1}{2}$ miles in length from Lake Erie at Toledo to the Ohio river at Cincinnati.

The distance from the Ohio river to the Loramie Summit is 100 miles and the lift 512 feet. There were formerly 53 locks south of the Summit, but in 1863 ten were cut off at Cincinnati. From north end of Loramie Summit to level of Lake Erie the distance is 123 miles, the number of locks 52 and fall 395 feet. Cost of construction \$5,920,200.41.

The distance from Lewistown reservoir to State dam across Great Miami river at Port Jefferson is $23\frac{1}{4}$ miles. Between this point and Lockington, the Sidney feeder, $13\frac{1}{4}$ miles in length, was constructed at a cost of \$392,258.32.

St. Mary's feeder and Loramie feeder are $2\frac{1}{2}$ miles, 3,361 feet in length, respectively.

OHIO AND ERIE CANAL.

The Ohio and Erie Canal extends from Lake Erie at Cleveland to the Ohio river at Portsmouth, a distance of 308 miles.

The north end of Portage Summit is 35 miles from lake level in Cuyahoga river, and has 42 locks.

The Summit level is 9 miles long, 395 feet above Lake Erie, 78 feet above Licking Summit, 491 feet above Ohio river at Portsmouth, and 968 feet above the Atlantic ocean.

Distance from south end of Summit to Dresden side-cut 102 miles, number of locks 29, fall 238 feet; from Dresden Junction to mouth of Muskingum river at Marietta 91 miles, fall 154 feet; from Dresden Junction to Licking Summit 31 miles, locks 19, rise 160 feet; from south end of Licking Summit to Ohio river at Portsmouth 116 miles, locks 53, fall 413 feet. Cost of construction, \$4,695,203.69.

The Walhonding Canal extends from Rochester to Roscoe, distance $2\frac{1}{2}$ miles, locks 12. Cost, \$607,268.99.

The Columbus Feeder extends from Columbus to Ohio Canal at Lockbourne, distance 11 miles, locks 2, fall 14 feet. Cost, \$61,483.00.

RESERVOIRS.

St. Mary's — No. of acres, (original), 12,603, cost \$528,222.07.
Lewistown — No. of acres, (original), 7,200, cost \$600,000.00.
Licking — No. of acres, (original), 4,200, cost \$200,000.00.
Portage, Summit county — No. of acres, (original), 2,000, cost \$80,000.00.
Loramie — No. of acres, (original), 1,900, cost \$22,000.00.

SIZE OF CANALS.

The Ohio, Walhonding and Miami and Erie Canals from Cincinnati to Dayton, were constructed 40 feet in width on top water line, bottom 26 feet, depth 4 feet; Miami and Erie Canal from Dayton to Junction 50 feet top, 26 bottom, depth 5 feet; Junction to Toledo, 60 feet top water line, 46 feet bottom, depth 6 feet.

The size of locks is 90 feet in length of chambers, with 15 feet clear width between walls, as originally built.

Respectfully submitted,

CHAS. E. PERKINS,
Chief Engineer Public Works of Ohio.

December 20, 1901.

MISCELLANEOUS EXPENDITURES.

ABSTRACT OF MONEY PAID

By W. M. Hiltabidle, Superintendent Division No. 1, Subdivision No. 1, Ohio canal,
for Material and Labor for rebuilding North Span of Peninsula Aqueduct.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	JANUARY, 1901.		
1	John Murphy.....	Rebuilding north span of Peninsula aqueduct	\$275 00
2	W. M. Seeley.....	Lumber for north span of Peninsula aqueduct	80 00
3	J. W. Bennage.....	Lumber for north span of Peninsula aqueduct	63 76
4	A. A. Likens.....	Stone work	829 22
	Total for month.....	.....	\$1,247 98

ABSTRACT OF MONEY PAID

By W. M. Hiltabidle, Superintendent Division No. 1, Sub-division No. 1, Ohio Canal,
for Material and Labor for the Maintenance and Repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	NOVEMBER, 1900.		
1	Chas. Hatch	Feeding state's team, etc.....	24 90
2	J. I. Johnston.....	Feeding state's team, etc.....	20 00
3	John Moore	Feeding state's team, etc.....	21 60
4	August Schultz	Coal for collector at Cleveland.....	73 76
5	John Zimmerman	Protection stone	64 40
6	The Cleveland Leader.....	Printing blanks for collector.....	6 00
7	W. M. Seeley	Lumber for lock and bridge repairs.....	25 00
8	John McGrotty	Supplies for State Boat No. 1.....	14 32
9	Cuyahoga Telephone Co.....	Telephone service	48 50
10	Peoples' Telephone Co.....	Telephone service	17 24
11	C. U. Telephone Co.....	Telephone service	21 80
12	Martin Heiser	Repairing boat injured at Eight Mile aqueduct	27 28

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
13	G. A. Kemple.....	Iron for steam dredge	3 41
14	E. Colloredo	Harness repairs and supplies	12 35
15	W. M. Hiltabidle.....	Expenses as superintendent	55 95
16	J. M. Loffer.....	Paint for repairing buggy	2 90
17	Harter & Milar.....	Hardware for general repairs	34 41
18	C. W. Riley.....	Blacksmith work on repairs	9 66
19	Reid Bros.....	Rubber boots for State Boat men....	22 00
20	Chas. Coffman	Coal for collector's office	3 16
21	Kittinger & Stock.....	Lumber for gates in towing path....	6 25
22	H. A. Fisher.....	Supplies for State Boat No. 3.....	10 10
23	David Atwater.....	Office rent	29 29
24	Chas. E. Perkins.....	Expenses as chief engineer	10 00
	Pay roll, officers.....	Salaries	496 66
	Pay roll No. 1.....	Labor	113 00
	Pay roll No. 2.....	Labor	124 00
	Pay roll No. 3.....	Labor	189 50
	Total for month.....		\$1,487 44
	DECEMBER, 1900.		
1	Chas. Hatch	Feeding state's team, etc.....	24 65
2	J. I. Johnston.....	Feeding state's team, etc.....	20 00
3	John Moore	Feeding state's team, etc.....	21 75
4	The Bruner-Goodhue Co....	Repairing state mill	23 00
5	Harter & Milar.....	Hardware for general repairs	41 09
6	A. Adamson	Castings, etc., for general repairs..	5 78
7	The Thomas Lumber Co....	Lumber for general repairs.....	11 57
8	W. M. Hiltabidle.....	Expenses as superintendent.....	56 05
9	Myers Bros	Hardware for State Boat, No. 3....	15 00
10	Chas. Weil	Blacksmith work for State Boat, No. 3	3 25
11	Chas. E. Perkins	Expenses as chief engineer	10 00
	Pay roll, officers.....	Salaries	496 66
	Pay roll No. 1.....	Labor	126 25
	Pay roll No. 2.....	Labor	225 00
	Pay roll No. 3.....	Labor	150 75
	Total for month.....		\$1,230 80
	JANUARY, 1901.		
1	Chas. Hatch	Feeding state's team, etc.....	25 62
2	J. I. Johnston.....	Feeding state's team, etc.....	20 00
3	John Moore	Feeding state's team, etc.....	22 50
4	J. M. Jones.....	Expenses as collector	2 61
5	J. H. Morrison.....	Expenses as collector	5 02
6	The Cuyahoga Telephone Co.	Use of telephone and lines.....	17 20
7	Central Union Telephone Co.	Use of telephone and lines.....	22 10
8	The Peoples Telephone Co.	Use of telephone and lines.....	8 85
9	A. A. Likens.....	Building lockwall at Portage lock..	81 98
10	Peterson & Wright.....	Cement for grouting lock.....	52 84
11	Chas. Coffman	Coal for office.....	24 00
12	The Briggs-Riblet Co.....	Livery	15 00

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
13	W. G. Paul.....	Brick for repairing lock.....	13 00
14	Harter & Milar.....	Hardware for general repairs.....	27 40
15	W. M. Hiltabidle.....	Expenses as superintendent.....	57 20
16	J. E. Swits.....	Blacksmith work.....	1 60
17	G. M. Boody.....	Blacksmith work.....	3 95
18	A. Adamson.....	Grate casting.....	1 35
19	Henry Miller.....	Dirt for fill.....	2 64
20	F. M. McGrew.....	Medicine for horse.....	4 80
21	J. Peterson.....	Glass for state boat.....	67
22	Chas. E. Perkins.....	Expenses as chief engineer.....	7 25
	Pay roll, officers.....	Salaries.....	496 66
	Pay roll No. 1.....	Labor.....	250 00
	Pay roll No. 2.....	Labor.....	236 37
	Pay roll No. 3.....	Labor.....	137 00
	Total for month.....		\$1,537 61
	FEBRUARY, 1901.		
1	Chas. Hatch.....	Feeding state's team, etc.....	25 30
2	J. I. Johnston.....	Feeding state's team, etc.....	20 00
3	John Moore.....	Feeding state's team, etc.....	21 25
4	H. Myers.....	Blacksmith repair work.....	3 05
5	C. W. Riley.....	Blacksmith repair work.....	6 75
6	Chas. Weil.....	Blacksmith repair work.....	4 25
7	A. A. Likens.....	Building lock wall.....	249 60
8	Brewster Coal Co.....	Coal for collector's office, etc.....	21 65
9	Harter & Milar.....	Hardware for general repairs.....	56 99
10	Akron Printing Co.....	Printing blanks for superintendent..	13 50
11	Reid Bros.....	Rubber boots for employees.....	17 00
12	W. M. Hiltabidle.....	Expenses as superintendent.....	53 30
13	C. W. Breece.....	Repairing harness.....	4 00
14	Dickson Transfer Co.....	Livery for employees.....	20 00
15	U. G. Frederick.....	Pine lumber for general repairs... ..	64 77
16	Chas. E. Perkins.....	Expenses as chief engineer.....	9 00
	Pay roll, officers.....	Salaries.....	496 66
	Pay roll No. 1.....	Labor.....	109 50
	Pay roll No. 2.....	Labor.....	197 00
	Pay roll No. 3.....	Labor.....	138 00
	Total for month.....		\$1,531 57
	MARCH, 1901.		
1	Chas. Hatch.....	Feeding state's team, etc.....	24 30
2	J. I. Johnston.....	Feeding state's team, etc.....	20 35
3	John Moore.....	Feeding state's team, etc.....	22 75
4	D. Jackson & Co.....	One derrick and guys complete.....	25 00
5	A. A. Likens.....	Building wall at Portage lock.....	985 60
6	Peterson & Wright.....	Cement for Wallace lock waste weir..	30 10
7	U. G. Frederick.....	Pine lumber for general repairs.....	19 97
8	Martin Heiser.....	Building lock gates and land dredge..	149 77
9	C. U. Telephone Co.....	Use of telephone and lines.....	29 50
10	Peoples' Telephone Co.....	Use of telephone and lines.....	9 90

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
11	Akron Shoe Co.....	Rubber boots for state boat men....	22 50
12	Harter & Milar.....	Hardware for general repairs.....	35 04
13	W. U. Telegraph Co.....	Use of lines.....	6 22
14	Ada L. Briggs.....	Damage to land.....	75 00
15	Wm. M. Hiltabidle.....	Expenses as superintendent.....	55 95
16	W. E. Spidel.....	Lock-gate timbers and plank.....	252 82
17	W. M. Seeley.....	Timbers for dam and waste weir..	65 34
18	Chas. Weil.....	Blacksmith work.....	4 10
19	J. W. McClellan.....	Caring for state's pony.....	12 00
20	Chas. E. Perkins.....	Expenses as chief engineer.....	11 00
21	Wykoff, Seamans & Bene- dict.....	Expenses for type-writing machine.	15 00
22	J. A. Gehres.....	Engineering services.....	10 00
	Pay roll, officers.....	Salaries.....	496 66
	Pay roll No. 1.....	Labor.....	342 00
	Pay roll No. 2.....	Labor.....	394 61
	Pay roll No. 3.....	Labor.....	300 50
	Total for month.....		\$3,415 98
	APRIL, 1901.		
1	Chas. Hatch.....	Feeding state's team, etc.....	25 90
2	J. I. Johnston.....	Feeding state's team, etc.....	21 15
3	John Moore.....	Feeding state's team, etc.....	22 25
4	J. H. Morrison.....	Expenses as collector.....	6 95
5	John Zimmerman.....	Stone for protecting bank.....	94 50
6	Martin Heiser.....	Repairing Boat No. 1, and making mitre sills.....	88 58
7	Cramer & Logan.....	Cement for repairing locks.....	56 40
8	Chas. Coffman.....	Coal for offices at Lock 1.....	27 50
9	A. A. Likens.....	Building wall at Portage.....	448 00
10	W. E. Spidel.....	Lumber for mitre sills, etc.....	207 96
11	Hankey Lumber Co.....	Lumber for general repairs.....	85 93
12	W. M. Seeley.....	Lumber for general repairs.....	34 78
13	U. G. Frederick.....	Lumber for general repairs.....	35 60
14	L. Beers.....	Hardware for general repairs.....	26 43
15	Harter & Milar.....	Hardware for general repairs.....	38 04
16	John Gross.....	Hardware for general repairs.....	36 15
17	S. A. Conrad.....	Hardware for general repairs.....	8 24
18	G. M. Boody.....	Blacksmith work.....	5 30
19	C. W. Riley.....	Blacksmith work.....	31 60
20	H. Myers.....	Blacksmith work.....	7 30
21	Heisler & Owens.....	Blacksmith work.....	4 45
22	A. Stewart.....	Supplies for State Boat No. 1.....	4 35
23	W. M. Hiltabidle.....	Expenses as superintendent.....	56 10
24	Ben. Savacool.....	Repairing harness.....	3 90
25	Burch Directory.....	Two copies of Directory for city of Akron.....	6 00
26	H. R. Gilmore.....	Printing notices.....	2 00
27	John Gretzinger.....	Castings for waste-gates.....	57 15
28	The S. & M. Scraper Co....	Scrapers.....	26 00
29	H. H. Pille.....	Rubber boots.....	12 00
30	Chas. E. Perkins.....	Expenses as chief engineer.....	12 50

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
31	Wm. T. McLean.....	Clerical services from April 1st to May 1st, 1901.....	20 84
	Pay roll, officers.....	Salaries	496 66
	Pay roll No. 1.....	Labor	369 00
	Pay roll No. 2.....	Labor	441 50
	Pay roll No. 3.....	Labor	342 12
	Total for month.....		\$3,163 78
	MAY, 1901.		
1	Chas. Hatch	Feeding state's team, etc.....	28 40
2	J. I. Johnston.....	Feeding state's team, etc.....	25 15
3	John Moore	Feeding state's team, etc.....	22 00
4	Wm. Scott	Removing bars by contract	35 00
5	John Zimmerman	Protection stone for bank	105 00
6	The Cleveland Stone Co....	Breakwater stone for repairing lock.	70 00
7	U. G. Frederick.....	Lumber for general repairs.....	94 48
8	J. W. Bennage.....	Lumber for general repairs.....	66 61
9	Mills-Gray-Carleton Co....	Lumber for general repairs.....	36 00
10	The Hankey Lumber Co....	Lumber for general repairs.....	55 31
11	Harter & Milar	Hardware for general repairs.....	88 11
12	The Carrara Paint Co....	Paint for state boat.....	18 00
13	Reid Bros	Rubber boots for state laborers.....	28 00
14	C. W. Riley	Blacksmith work	6 45
15	W. M. Hiltabidle.....	Expenses as superintendent	57 20
16	C. G. Heinton.....	Blacksmith work	13 93
17	A. A. Likens	Building wing wall at Johnny-cake lock	819 20
18	Peterson & Wright.....	Cement for use in repairing locks...	65 42
19	Botzum Bros	Nails, spikes, etc., for lock-tenders.	8 15
20	C. W. Weil	Blacksmith work	4 20
21	H. A. Fisher.....	Cooking stove for State Boat No. 3.	16 00
22	E. E. Jobe.....	Supplies for State Boat No. 1.....	6 70
23	L. Beers	Supplies for State Boat No. 1.....	3 39
24	Chas. E. Perkins.....	Expenses as chief engineer.....	10 00
25	Wm. T. McLean.....	Clerical services from May 1st to June 1st, 1901	20 83
	Pay roll, officers.....	Salaries	496 66
	Pay roll No. 1.....	Labor	779 12
	Pay roll No. 2.....	Labor	579 75
	Pay roll No. 3.....	Labor	408 62
	Total for month.....		\$3,967 68
	JUNE, 1901.		
1	Chas. Hatch	Feeding state's team, etc.....	25 95
2	J. I. Johnston.....	Feeding state's team, etc.....	23 58
3	John Moore	Feeding state's team, etc.....	21 00
4	G. M. Boody.....	Blacksmith work	2 50
5	John Zimmerman	Protection stone	577 50
6	Daniel O'Marr	Protection stone	24 00
7	A. A. Likens	Building lock wall at Johnny-cake..	496 64

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
8	John Swain	Blacksmith work	7 50
9	The McIntosh-Hunt'g Co...	Hardware	143 66
10	Harter & Milar	Hardware	33 16
11	Webster, Camp & Lane.....	Castings, etc	160 70
12	C. J. Donahue.....	Cleaning vault at Lock No. 1.....	12 50
13	Lee Cattrell	Coal	2 75
14	The C. U. Telephone Co....	Use of telephone and lines	29 25
15	W. M. Hiltabidle.....	Expenses as superintendent	55 20
16	Martin Heiser	Repairing State Boat No. 2.....	55 00
17	C. W. Riley	Blacksmith work	3 35
18	Hankey Lumber Co.....	Lumber	61 59
19	Chas. E. Perkins.....	Expenses as chief engineer.....	11 00
	Pay roll, officers.....	Salaries	496 66
	Pay roll No. 1.....	Labor	523 75
	Pay roll No. 2.....	Labor	293 25
	Pay roll No. 3.....	Labor	348 50
	Total for month.....		\$3,408 99
	JULY, 1901.		
1	Chas. Hatch	Feeding state's team, etc.....	25 90
2	J. I. Johnston.....	Feeding state's team, etc.....	20 65
3	John Moore	Feeding state's team, etc.....	20 50
4	J. M. Jones	Expenses as collector	9 50
5	J. H. Morrison.....	Expenses as collector	5 55
6	David Atwater	Expenses as collector	7 78
7	C. W. Riley	Blacksmith repair work	17 60
8	J. W. Rodgers.....	Blacksmith repair work	17 95
9	T. J. Santom.....	Blacksmith repair work	25 50
10	Chas. Weil	Blacksmith repair work	6 35
11	W. E. Spidel.....	Lumber	182 36
12	A. A. Likens.....	Lumber	75 58
13	S. A. Conrad	Hardware	10 12
14	Harter & Milar.....	Hardware	41 31
15	W. M. Hiltabidle.....	Expenses as superintendent	57 10
16	The Cleveland Stone Co....	Wall stone	30 66
17	John Zimmerman	Stone for protection to towing path.	527 10
18	Martin Heiser	Building hand dredge No. 2.....	55 71
19	Peterson & Wright.....	Cement for grouting locks.....	54 86
20	G. A. Kemple.....	Iron for repairing derricks.....	6 50
21	The Carrara Paint Co.....	Paint for buildings at Lock No. 1..	18 00
22	The Textile Mnfg. Co.....	Canvas for state boat.....	15 20
23	A. Stewart	Livery for locktender at Peninsula..	7 70
24	W. C. Mott	Filing saws, etc	6 50
25	H. A. Fisher.....	Boat pump, etc.....	4 50
26	Hess, Snyder & Co.....	Repairs to pump	3 15
27	W. H. Payne.....	Pike holes, etc	5 50
28	West. Un. Tel. Co.....	Services rendered	3 90
	Pay roll, officers.....	Salaries	496 66
	Pay roll No. 1.....	Labor	404 00
	Pay roll No. 2.....	Labor	442 50
	Pay roll No. 3.....	Labor	365 00
	Total for month.....		\$2,967 29

ABSTRACT OF MONEY PAID

By W. M. Hiltabidle, Superintendent Division No. 1, Subdivision No. 1, Ohio Canal, for General Repairs Northern Division Ohio Canal.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	JANUARY, 1901.		
1	Peterson & Wright.....	Cement for repairing lock wall at Portage lock	15 76
		.....	15 76

ABSTRACT OF MONEY PAID

By Chas. H. Geidel, Superintendent Division No. 1, Subdivision No. 2, Ohio canal, for Material and Labor for the Maintenance and repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	DECEMBER, 1900.		
1	L. P. Wilson.....	Feeding team	20 00
2	Alfred Shoman	Feeding team	20 00
3	John F. Poorman.....	Expenses as collector	2 02
4	Margaret Harvey	Expenses as collector	2 71
5	Edwin Burchfield	Expenses as collector	3 52
6	Martin Miller	Coal furnished dredge No. 7.....	3 00
7	The Dresden Transcript....	Printing notices	3 45
8	L. P. Wilson.....	Incidental expenses	5 05
9	James A. Bell.....	Hardware furnished Shoman.....	7 86
10	Chas. H. Geidel.....	Expenses as superintendent	49 60
11	Chas. E. Perkins.....	Expenses as chief engineer	3 50
	Pay roll, officers.....	Salaries	269 16
	Pay roll No. 1.....	Labor	56 00
	Pay roll No. 2.....	Labor	103 25
	Total for month.....	.....	\$549 12
	JANUARY, 1901.		
1	L. P. Wilson.....	Feeding team	20 00
2	Alfred Shoman	Feeding team	20 00
3	Margaret Harvey	Expenses as collector	1 98
5	John F. Poorman.....	Expenses as collector	1 43
5	Edwin Burchfield	Expenses as collector	3 26
6	Edwin Burchfield	Blacksmith work for Shoman.....	2 50

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
7	E. B. Rogers.....	Blacksmith work on Lockport gates.	4 05
8	Danel Laub.....	Blacksmith work on Lockport gates.	4 50
9	The Citizens' Telephone Co.	Rent for telephone from Jan. 1st, to March 31st, 1901.....	3 00
10	M. Wiedmair.....	One Axe per Shoman.....	90
11	John Wilson.....	Building 1 pair gates for Lockport lock.....	50 00
12	A. M. Grewell.....	Lumber for gates at Lockport locks.	34 26
13	Adam & Gleason.....	Lumber for general repairs during season.....	82 87
14	C. H. Geidel.....	Expenses as superintendent.....	52 85
15	Peter Bimeler.....	For water furnished.....	100 00
	Pay roll, officers.....	Salaries.....	269 16
	Pay roll No. 1.....	Labor.....	62 00
	Pay roll No. 2.....	Labor.....	175 79
	Total for month.....		\$888 55
	FEBRUARY, 1901.		
1	L. P. Wilson.....	Feeding team.....	20 00
2	Alfred Shoman.....	Feeding team.....	20 00
3	E. Burchfield.....	Expenses as collector.....	1 76
4	Margaret Harvey.....	Expenses as collector.....	4 89
5	A. M. Grewell.....	Lumber for dredge No. 7.....	9 12
6	The Dyser Machine Works.	Material and machinists' labor on dredge No. 7.....	40 95
7	John Wilson.....	Making 1 pair gates for New Castle lock.....	50 00
8	L. P. Wilson.....	Extense incurred in overseeing laying of sewer at Dover.....	75 37
9	Fred Widder.....	Lumber for gates at New Castle, Trenton and Upper Zoar locks and for Negro Basin flood gates.....	105 18
10	C. H. Geidel.....	Expenses as superintendent.....	52 60
11	G. W. Hilton.....	Rent of Wave Mill dam from Jan. 18th, to April 18th, 1901.....	50 00
	Pay roll, officers.....	Salaries.....	269 16
	Pay roll No. 1.....	Labor.....	65 00
	Pay roll No. 2.....	Labor.....	111 12
	Total for month.....		\$875 15
	MARCH, 1901.		
1	L. P. Wilson.....	Feeding team.....	20 00
2	A. Shoman.....	Feeding team.....	20 00
3	Margaret Harvey.....	Expenses as collector.....	4 40
4	E. Burchfield.....	Expenses as collector.....	6 27
5	Martin Miller.....	Coal for dredge No. 7.....	3 00
6	The Wilgus Hardware Co..	Hardware furnished Wilson.....	3 55
7	The I. Crater Co.....	Hardware furnished Wilson.....	4 35
8	L. P. Wilson.....	Freight and miscellaneous expenses.	11 25
9	C. M. Furgeson.....	Oil for dredge No. 7.....	12 65

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
10	H. H. Eagon.....	Paint for repair boat No. 1.....	15 12
11	Novelty Brick Co.....	Brick for repairing walls of lock No. 17	21 00
12	Schoedinger, Fearn & Co...	One keg boat spikes	5 00
13	A. H. Thompson & Son.....	35 bbls cement and cartage	25 15
14	James A. Bell.....	Hardware furnished Shoman.....	34 57
15	C. H. Geidel.....	Expenses as superintendnt.....	53 20
16	Wykoff, Seamans & Bene- dict	Expense for type writing machine..	15 00
17	C. E. Perkins.....	Traveling expenses as chief engineer.	6 00
	Pay roll, officers.....	Salaries	269 16
	Pay roll No. 1.....	Labor	201 00
	Pay roll No. 2.....	Labor	146 75
	Total for month.....		\$877 42
	APRIL, 1901.		
1	L. P. Wilson.....	Feeding team	20 00
2	A. L. Norman.....	Feeding team	20 00
3	J. F. Poorman.....	Expenses as collector	2 13
4	M. S. Harvey.....	Expenses as collector.....	3 74
5	E. Birchfield	Expenses as collector	4 50
6	J. Peck	One pair of rubber boots.....	2 75
7	L. P. Wilson	Blacksmith work, 2 mortar buckets, saws, etc	2 90
8	The Citizens' Telephone Co.	Rent of telephone from April 1st to June 30th, 1901.....	3 00
9	W. H. King	45 lbs. castings and four handles for boiler	2 40
10	Alonzo Clark	72 yards duck at 15c, for new re- pair boat	10 80
11	John Klineknecht	377 bu. coal at 7½c for dredge No. 7.	28 27
12	The Wilgus Hardware Co..	6 shovels at 90c, 2½ lbs. nails.....	5 50
13	Geo. B. Deardorff & Son....	2 pick handles, cotton rope, 2 ax handles, ½ doz. shovels.....	8 28
14	Gray Hardware Co.....	Hardware for dredge No. 7 and re- pair boat "Col Perkins".....	31 82
15	John Wilson	Making gates for Upper Zoar and New Castle locks.....	50 00
16	Fred Widder	Lumber for hull of new repair boat..	77 84
17	Adams & Gleason.....	Lumber for cabin of new repair boat.	130 93
18	C. H. Geidel.....	Expenses as superintendent	54 10
19	James Bell	Hardware for new repair boat No. 2.	27 81
20	Wm. T. McLean.....	Clerical services from April 1st to May 1st, 1901	20 83
21	Heck & May	Labor performed as per bill.....	14 83
22	A. H. Compton.....	Labor performed	6 80
	Pay roll, officers.....	Salaries	269 16
	Pay roll No. 1.....	Labor	404 00
	Pay roll No. 2.....	Labor	178 10
	Pay roll No. 3.....	Labor	285 75
	Pay roll No. 4.....	Labor	67 00
	Total for month.....		\$1,733 24

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
MAY, 1901.			
1	L. P. Wilson.....	Feeding team	20 00
2	A. L. Norman.....	Horse shoes, feeding team, and 15 pounds of nails	20 98
3	J. F. Poorman.....	Expenses as collector	1 82
4	E. Burchfield	Expenses as collector	1 28
5	L. P. Wilson.....	Incidental expenses	6 50
6	A. T. Myer.....	Shovels, \$4.50; bucket, 45c; tin cup, 5c.....	5 30
7	J. F. Reiser.....	Rope 68c; spikes, 8c; shovels, \$2.10.....	2 86
8	E. Engelhart	Two rods for Blake's mill lock....	1 25
9	John A. Zeeb.....	6 bbls. cement for Blake's mill lock.	6 00
10	D. F. Lash.....	4 shovels at 75c; 2 shovels at \$1; spikes, 50c	5 50
11	James A. Bell.....	Hardware for dredge No. 7.....	9 93
12	Gray Hardware Co.....	Hardware for dredge No. 7 and repair boat	36 02
13	Joseph Doll	104 lbs. castings	5 20
14	W. Dyser's Machine Works.	Repairs to dredge No. 7.....	3 70
15	John Medly	Dressing saws and hammers; 2 handles	2 00
16	David Davis	Coal for dredge No. 7.....	46 40
17	John Miller	Railway fare and board while repairing breaks	5 45
18	C. H. Geidel	Expenses as superintendent	59 10
19	G. W. Hilton	Rent of Wave Mill dam April 18th to July 18th	50 00
20	Wm. T. McLean.....	Clerical services from May 1st to June 1st, 1901.....	20 84
	Pay roll, officers.....	Salaries	269 16
	Pay roll No. 1.....	Labor	433 12
	Pay roll No. 2.....	Labor	110 74
	Pay roll No. 3.....	Labor	318 87
	Pay roll No. 4.....	Labor	341 40
	Pay roll No. 5.....	Labor	60 62
	Total for month.....		\$1,844 04
JUN, 1901.			
1	L. P. Wilson.....	Feeding team	20 00
2	A. L. Norman.....	Feeding team	20 00
3	J. F. Poorman.....	Expenses as collector	92
4	E. Burchfield	Expenses as collector	1 52
5	M. S. Harvey.....	Expenses as collector	2 58
6	Excelsior Hardware Co....	Stove pipes and angle elbows.....	1 65
7	Geo. B. Deardorff & Son...	Rope for tow line and fall line for blocks	5 39
8	E. R. Reed.....	Hardware, making pump and deck work on new repair boat.....	6 22
9	Carrie Beck	One plow	7 00
10	Gray Hardware Co.....	Hardware used at Zoar locks and Adams Mills	7 25
11	James A. Bell.....	Hardware used on new repair boat..	30 96

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
12	The Dayton G. I. W. Co...	Two pinions at \$2.....	4 00
13	W. H. King.....	Large casting and one top for dredge No. 7.....	14 18
14	W. Dyser's Machine Works.	Machinists' labor and castings on dredge.....	22 73
15	L. P. Wilson.....	Incidental.....	7 98
16	Frank Tingler.....	Coal for dredge No. 7.....	18 06
17	Geo. Pharion.....	6 new shoes for state's team.....	1 95
18	James Bell.....	Blacksmith work.....	6 80
19	Geo. W. Pace.....	One set of harness for Norman....	21 00
20	M. G. Hack.....	35 yds. stone at 60c, for general repairs.....	21 00
21	Fred. Widder.....	Lumber for Sudam's sluice gates....	36 66
22	Chas. H. Geidel.....	Expenses as superintendent.....	57 85
23	Columbus Buggy Co.....	One wagon for state services.....	55 00
24	C. E. Perkins.....	Traveling expenses as chief engineer.	3 50
	Pay roll, officers.....	Salaries.....	269 16
	Pay roll No. 1.....	Labor.....	338 11
	Pay roll No. 2.....	Labor.....	304 22
	Pay roll No. 3.....	Labor.....	426 55
	Total for month.....		\$1,712 24
	JULY, 1901.		
1	L. P. Wilson.....	Feeding team.....	20 00
2	A. L. Norman.....	Feeding team.....	20 00
3	M. S. Harvey.....	Expenses as collector.....	4 71
4	E. Burchfield.....	Expenses as collector.....	5 15
5	Adams Express Co.....	Freight on castings from Dayton....	2 70
6	Citizens' Telephone Co.....	Rent of phone from July 1st to Sept. 30th, 1901.....	3 00
7	W. U. Telegraph Co.....	Telegrams sent.....	50
8	Central Union Tel. Co.....	Telephone messages.....	2 15
9	D. T. Lash.....	Spikes, iron, ax, whetstone per Wilson.....	3 12
10	Wilgus Hardware Co.....	Four shovels, per Norman.....	3 60
11	Gray Hardware Co.....	Rope, nails, per Norman.....	4 88
12	Wilgus Hardware Co.....	Rope, nails, forks, per Wilson....	7 39
13	Walker & Cantwell.....	One pair hip boots, use on repair boat.....	4 50
14	Novelty Brick & Coal Co...	1 000 foundation brick for lock No. 24.....	10 00
15	Frank, Tingler.....	Coal for dredge No. 7.....	10 86
16	W. J. North.....	Damage to corn by overflow of sluice gates.....	10 00
17	John Gorman.....	Traveling expenses from Dayton to Adams Mills and return.....	11 00
18	Dayton Globe Iron Wks. Co.	Machinery, telephone and express charges for dredge No. 7.....	31 80
19	Miskimen Furnace Co.....	222 lbs castings at 2c for gates of locks Nos. 11 and 30.....	4 44
20	C. Bence.....	Eight new shoes for state's team...	3 00

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
21	Samuel Shaeffer	Band and forging for dredge No. 7, and four new shoes	4 70
22	L. P. Wilson.....	Cash paid for bolts, buckets, nails, etc	13 89
23	Fred Widder	Lumber for Adams' Mills and Zoar lock gates	58 43
24	G. W. Hilton.....	Rent of Wave Mill dam from July 18th to October 18th, 1901.....	50 00
25	John Wilson	Making two pair gates, Zoar and Adams' Mills locks.....	100 00
26	Chas. H. Geidel	Expenses as superintendent	58 80
27	Samuel Bachtell	Traveling expenses as asst engineer..	3 00
28	Western Union Tel. Co.....	For services rendered	3 39
29	Haas & Adams	For material furnished	48 54
	Pay roll, officers.....	Salaries	269 16
	Pay roll No. 1.....	Labor	377 00
	Pay roll No. 2.....	Labor	365 00
	Pay roll No. 3.....	Labor	321 90
	Total for month.....		\$1,836 61
	AUGUST, 1901.		
1	L. P. Wilson.....	Feeding team	20 00
2	A. L. Norman.....	Feeding team	20 00
3	J. F. Poorman.....	Expenses as collector	1 14
4	M. S. Harvey.....	Expenses as collector	1 34
5	E. Burchfield	Expenses as collector	3 25
6	Wilgus Hardware Co.....	1 lock and 1 fork per Wilson.....	1 15
7	Gray Hardware Co.....	5 gals cylinder oil at 40c, for dredge No. 7.....	2 00
8	B. Worth Ricketts.....	Rope, white lead, oil	6 51
9	Geo. B. Deardorff & Son...	Grindstone shaft, wheel barrows, nails, bolts, rope, etc.....	13 37
10	C. F. Kline	Wrenches, crowbar, grass-hook handles, bolts, etc	4 20
11	Keagy & Lear Mach. Co....	Steel shaft, making piston, packing rims	5 67
12	F. W. Wise	Repairing lock gate irons, paddle stops, bolts, etc.....	10 20
13	Wagner Bros	48 hours work on shovel at 40c, ma- terial, welding bail.....	26 20
14	Wible-Enck Co.....	1 pole, handle for hand dredge, lum- ber for running plank	10 71
15	L. P. Wilson.....	2 road scrapers and incidental ex- penses	15 10
16	C. H. Geidel.....	Expenses as superintendent	54 85
17	H. A. Smith.....	Supplies for dredge No. 7.....	6 65
18	Western Union Tel. Co....	For telegraph service rendered....	1 88
19	Chas. E. Perkins.....	Expenses as chief engineer for July.	9 00
	Pay roll, officers.....	Salaries	269 16
	Pay roll No. 1.....	Labor	480 50
	Pay roll No. 2.....	Labor	55 75

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	Pay roll No. 3.....	Labor	245 25
	Pay roll No. 4.....	Labor	253 37
	Total for month.....		\$1,517 25
	SEPTEMBER, 1901.		
1	L. P. Wilson.....	Feeding team	20 00
2	A. L. Norman.....	Feeding team	20 00
3	John F. Poorman.....	Expenses as collector	1 04
4	Margaret Harvey	Expense as collector	3 26
5	W. U. Telegraph Co.....	Telegraph service	85
6	Citizens' Telephone Co.....	Rent of phone from Oct. 1st to Dec. 31st, 1901	3 00
7	J. W. Caldwell.....	Blacksmith work on dredge	1 80
8	Gray Hardware Co.....	5 gals. cylinder oil and rubber packing for dredge	2 75
9	Frank Tingler	Coal for dredge	52 80
10	Chas. H. Geidel.....	Expenses as superintendent	52 60
11	C. E. Perkins.....	Traveling expenses as chief engineer.....	5 00
12	A. H. Thompson & Son.....	For cement furnished	9 80
	Pay roll, officers.....	Salaries	269 16
	Pay roll No. 1.....	Labor	164 50
	Pay roll No. 2.....	Labor	126 65
	Pay roll No. 3.....	Labor	210 99
	Total for month.....		\$944 20
	OCTOBER, 1901.		
1	L. P. Wilson.....	Feeding team	20 00
2	A. L. Norman.....	Feeding team	20 00
3	E. Burchfield	Expenses as collector	1 25
4	J. F. Poorman.....	Expenses as collector	1 64
5	M. S. Harvey	Expenses as collector	9 68
6	L. P. Wilson.....	Nails, drayage and livery.....	2 95
7	E. Burchfield	Blacksmith work	3 70
8	E. B. Rogers	Blacksmith work	9 25
9	Haas & Adams	Lumber used at Dresden aqueduct.....	7 12
10	C. E. Reiser.....	Hardware	4 06
11	C. H. Geidel.....	Expenses as superintendent	52 10
12	G. W. Hilton.....	Rent of Wave Mill dam from Oct. 18th to January 18th	50 00
13	Samuel L. Schaeffer	Blacksmith work shoeing horses	4 70
14	Samuel Bachtelt	Traveling expenses as asst engineer.....	3 00
15	Chas. E. Perkins.....	Traveling expenses as chief engineer.....	10 00
	Pay roll, officers.....	Salaries	269 16
	Pay roll No. 1.....	Labor	74 00
	Pay roll No. 2.....	Labor	141 25
	Total for month.....		\$683 86

ABSTRACT OF MONEY PAID

By C. Dietz, Superintendent Division No. 2, Subdivision No. 3, Ohio canal,
for Material and Labor for the Maintenance and repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
NOVEMBER, 1900.			
1	G. W. Clark.....	Oak lumber	59 04
2	Kramer & Bolenbaugh.....	Hardware	4 55
3	H. P. Courtier, collector....	Postage and exchange	1 50
4	F. C. Dietz.....	Traveling expenses, etc	49 91
5	S. M. Brown	Feeding state's horses	10 00
6	Alex. Richardson.. ..	Livery and expenses	1 70
7	J. V. Conklin.....	Livery	1 00
	Pay roll, officers.....	Salaries	218 32
	Pay roll No. 1.....	Labor	382 16
	Pay roll No. 2.....	Labor	106 25
	Total for month.....		\$834 43
DECEMBER, 1900.			
1	Ball Carriage Works	Shoeing state's horse	2 40
2	S. M. Brown	Shoeing state's horse	10 00
3	F. C. Dietz	Expenses as superintendent	35 25
4	Hoover & Graves	Livery	2 50
5	Perry Rank	Livery	5 00
6	William Lane	Gravel	42
7	Kramer & Bolenbaugh	Hardware	3 49
8	Chas. E. Perkins.....	Expenses	5 00
	Pay roll, officers.....	Salaries	218 32
	Pay roll No. 1.....	Labor	184 25
	Pay roll No. 2.....	Labor	51 50
	Total for month.....		\$518 13
JANUARY, 1901.			
1	H. W. Showalter.....	Hardware	2 00
2	S. M. Brown.....	Feeding state's horse	10 00
3	F. C. Dietz.....	Traveling expenses as superintendent	27 55
4	C. C. Benedum.....	Livery	1 00
5	Alex Richardson	Livery	2 00
	Pay roll, officers.....	Salaries	218 32
	Pay roll No. 1.....	Labor	188 75
	Pay roll No. 2.....	Labor	50 00
	Total for month.....		\$499 62
FEBRUARY, 1901.			
1	J. H. Oty.....	Hardware	1 99
2	H. W. Showalter.....	Hardware	4 60
3	S. M. Brown.....	Feed and care state horse	10 00
4	Alexander Richardson	Feed and care state horses and livery	9 66
5	F. C. Dietz.....	Traveling expenses	40 10
6	P. T. Stover.....	Repairing harness	20 05

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
7	J. L. Rapp	1 pair bay horses	231 00
	Pay roll, officers.....	Salaries	218 32
	Pay roll No. 1.....	Labor	126 65
	Pay roll No. 2.....	Labor	50 00
	Total for month.....		\$712 37
	MARCH, 1901.		
1	Wesley Holmes	Horse blankets and oil	5 30
2	S. M. Brown	Feeding state's horse	10 00
3	Alex. Richardson	Feeding state's horses	20 00
4	F. C. Dietz, Superintendent.	Traveling expenses	38 80
5	H. P. Courtier, collector....	Postage and exchange	1 78
6	Wykoff, Seamans & Benedict	To expense for typewriting machine.	15 00
	Pay roll, officers.....	Salaries	218 34
	Pay roll No. 1.....	Labor	217 00
	Pay roll No. 2.....	Labor	62 00
	Total for month.....		\$588 22
	APRIL, 1901.		
1	T. B. Townsend B. & C. Co.	Bricks	75 25
2	Wm. C. Townsend & Co.....	Cement	20 52
3	Wesley Holmes	Cement	1 25
4	H. W. Showalter.....	Hardware	13 95
5	Dory Clark	Lumber	13 25
6	Wm. T. Evans & Son.....	Lumber and mill work	18 03
7	F. C. Dietz, Supt.....	Traveling expenses	45 26
8	Alex Richardson	Feeding state's horses and livery for superintendent	22 26
9	S. M. Brown	Feeding state's horses and livery for superintendent	10 00
10	Wm. F. Pfeiffer	Derrick	38 00
11	Wm. T. McLean.....	For clerical services from April 1st to May 1st, 1901.....	20 83
	Pay roll, officers.....	Salaries	218 32
	Pay roll No. 1.....	Labor	304 50
	Pay roll No. 2.....	Labor	129 51
	Total for month.....		\$930 93
	MAY, 1901.		
1	J. J. Snyder & Co.....	Oak timber	173 98
2	The Ferris Steam Mortar Co.	Louisville cement	29 04
3	Wesley Holmes	Hardware	60
4	H. W. Showalter.....	Hardware	13 55
5	McCune Crane Hardw. Co..	Hardware	6 31
6	John E. Fulton & Son.....	Hardware, (rope)	2 01
7	Ball Carriage Works.....	Blacksmithing	7 20
8	Frank T. Wollard	Driven well and pump	13 20

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
9	F. C. Dietz, Superintendent.	Traveling expenses	46 70
10	G. W. Siebert	Livery	2 50
11	Alex. Richardson	Livery	3 50
12	Perry Rank	Livery	2 00
13	Alex. Richardson	Feeding state's horses	20 00
14	S. M. Brown	Feeding state's horse	10 00
15	W. M. Metzger	Hauling timber	11 86
16	George Davies	Cutting brush and removing debris..	15 00
17	Capt. D. Fisher	Use of steam boat	5 00
18	Wm. T. McLean	For clerical services from May 1st to June 1st, 1901	20 83
19	C. E. Perkins	Traveling expenses as chief engineer.	3 00
	Pay roll, officers	Salaries	218 32
	Pay roll No. 1	Labor	407 25
	Pay roll No. 2	Labor	189 50
	Total for month		\$1,201 35
	JUNE, 1901.		
1	Brown Mnfg. Co.	Wagon	65 86
2	P. C. C. & St. L. R. R.	Freight	22 36
3	Zanesville Hardware Co.	Oakum	4 05
4	F. C. Dietz, Superintendent.	Traveling expenses	39 90
5	S. M. Brown	Expense feeding state's horse	10 00
6	Alex. Richardson	Expense feeding state's horses	21 50
7	Perry Rank	Livery	2 50
8	G. W. Siebert	Livery	1 50
9	Frank Carnes	Livery for Board of Public Works and Canal commission	5 00
10	N. S. Ebright	Livery for Board of Public Works and Canal commission	5 00
11	Alex. Richardson	Livery	2 00
12	McCune-Crane Hardw. Co.	Hardware and paints	31 18
13	Jno. E. Fulton & Son	Hardware	15 13
14	Silas Kistler	Stove for state boat	3 00
15	Wm. T. Evans & Son	Lumber	84 28
16	Wesley Holmes	Utensils for boat	4 85
17	J. M. Green	Blacksmith work	3 75
18	C. E. Perkins	Traveling expenses as chief engineer.	3 00
	Pay roll, officers	Salaries	218 32
	Pay roll No. 1	Labor	537 55
	Pay roll No. 2	Labor	187 25
	Total for month		\$1,267 98
	JULY, 1901.		
1	Wm. C. Townsend & Co.	Cement	38 88
2	Union Machine Works	Bolts	37 50
3	Jno. E. Fulton & Son	Hardware and paint	54 51
4	S. H. Reasoner	Sand	11 25
5	Alex. Richardson	Feeding state's horses and bits	21 20
6	S. M. Brown	Feeding state's horse	10 00

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
7	H. P. Courtier, collector....	Expense, exchange and postage.....	2 14
8	F. C. Dietz, Superintendent.	Traveling expense	48 15
9	Zanesville Hardware Co....	Spikes	5 40
10	W. H. Baker	Blacksmith work	1 35
11	J. W. Green.....	Blacksmith work	28 40
12	Alex. Richardson	Livery	1 00
13	H. H. Rosebaugh.....	Livery	1 00
14	Western Union Tel. Co....	For telegraphic services rendered....	3 39
	Pay roll, officers.....	Salaries	218 34
	Pay roll No. 1.....	Labor	454 55
	Pay roll No. 2.....	Labor	337 25
	Total for month.....		\$1,274 31
	AUGUST, 1901.		
1	W. H. H. Francis & Son....	Hardware	7 78
2	McCune-Crane Co.....	Hardware	24 82
3	H. W. Showalter.....	Hardware	3 80
4	The Zanesville Hardw. Co..	Hardware	8 04
5	John E. Fulton & Son....	Hardware	5 72
6	Wm. C. Townsend & Co....	Louisville cement	27 54
7	Wm. C. Townsend & Co....	Portland cement	20 52
8	Moser, Wehrle & Co.....	Portland cement	19 50
9	Alex. Richardson	Feeding state's horses	20 45
10	E. D. Jackson.....	Use of screw jacks	2 00
11	F. C. Dietz.....	Traveling expenses	41 00
12	S. M. Brown	Feeding state's horse	10 00
13	T. B. Townsend B. & C. Co.	Tunnel blocks (brick)	75 30
14	S. H. Reasoner.....	Screened sand	22 50
15	Made Hamilton	Livery	1 00
16	J. M. Rosenbaugh	Livery	1 50
17	Perry Rank	Livery	2 50
18	Chas. Whitehead	Livery	4 00
19	L. H. Lemert.....	Blacksmithing	90
20	J. T. Edgerton.....	For engineering services and ex- penses	67 05
21	Western Union Tel. Co....	For telegraphic services rendered...	1 88
22	Samuel Bachtell	Traveling expenses as asst engineer.	2 00
	Pay roll, officers.....	Salaries	218 32
	Pay roll No. 1.....	Labor	675 25
	Pay roll No. 2.....	Labor	241 75
	Pay roll No. 3.....	Labor	64 50
	Total for month.....		\$1,569 62
	SEPTEMBER, 1901.		
1	John E. Fulton & Son....	Spikes and sulphur	4 07
2	L. H. Lemert.....	Blacksmith work	1 00
3	Moser & Wehrle	Cement	29 63
4	Wm. Welsh	Storage of cement	1 00
5	O. P. Conner	Coal for portable forge	1 00
6	F. C. Dietz.....	Traveling expenses	48 60
	7 B. P. W.		

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
7	Alexander Richardson	Feeding state's horses and livery...	21 00
8	S. M. Brown	Feeding state's horse	10 00
9	G. V. Phelps	Filing saws	3 25
10	E. Curtis	Livery	1 00
11	S. H. Reasoner	Screened sand	8 25
12	S. Bachtell	Traveling expenses as asst engineer.	4 00
12	E. Hickey	Oak timber and lumber	400 00
	Pay roll, officers.....	Salaries	218 32
	Pay roll No. 1.....	Labor	525 95
	Pay roll No. 2.....	Labor	55 00
	Pay roll No. 3.....	Labor	251 25
	Total for month.....		\$1,583 32
	OCTOBER, 1901.		
1	Fleck & Neal	Cement	19 95
2	E. Hickey	Oak timber and lumber	599 38
3	Geo. Maybold	Rubber hip boots	10 50
4	Ball & Ward	Blacksmith work	10 15
5	McCune-Crane Hdw. Co....	Hardware	8 12
6	Perry Rank	Livery	3 00
7	Hoover & Graves.....	Livery	1 50
8	L. B. Blake	Livery	1 00
9	F. C. Dietz	Expenses as superintendent	37 10
10	J. S. Oxley	Harness repairs	3 45
11	Alex. Richardson	Feeding state's horses	20 00
12	S. M. Brown	Feeding state's horses	10 00
13	Jno. E. Fulton & Son.....	Bolts and brooms	10 97
14	S. H. Reasoner	Screened sand	5 25
15	A. W. Claypool	Expense, files, scythe stones, fork handles, etc.....	1 35
16	J. W. Rutledge, recorder....	Recording leases	12 00
	Pay roll, officers.....	Salaries	218 32
	Pay roll No. 1.....	Labor	467 00
	Pay roll No. 2.....	Labor	50 00
	Pay roll No. 3.....	Labor	204 00
	Total for month.....		\$1,693 04
	NOVEMBER, 1901.		
1	Benedum, Peters & Co....	Horse blankets	4 50
2	G. W. Bealmear	Livery	2 00
3	T. S. O'Bannon	Labor with team	60
4	S. M. Brown	Expense feeding state's horse	10 00
5	Alex. Richardson	Expense feeding state's horses	20 05
6	F. C. Dietz	Expense traveling as superintendent	41 20
7	Samuel Bachtell	Traveling expense as asst engineer..	2 00
8	Western Union Tel. Co....	For services rendered	1 50
9	J. M. & W. Westwater.....	For electric lamps furnished for office	1 00
10	Cross & Robinson	For Webster's dictionary for office..	3 00
	Pay roll, officers.....	Salaries	218 32

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	Pay roll No. 1.....	Labor	313 25
	Pay roll No. 2.....	Labor	122 98
	Total for month.....	.....	\$740 40

ABSTRACT OF MONEY PAID

By Geo. W. Watkins, Superintendent Division No. 2, Subdivision No. 4, Ohio canal,
for Material and Labor for the Maintenance and repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
NOVEMBER, 1900.			
1	J. A. Breinig	Hardware	6 85
2	The J. C. Hibbs Co.....	Hardware	1 35
3	The J. C. Hibbs Co.....	Hardware	7 84
4	Geo. H. Watkins.....	Expenses as superintendent	61 75
5	W. H. Kirkendall.....	Expenses and keeping team.....	22 00
6	P. Brewer	Expenses and keeping team.....	22 00
7	C. W. Watkins.....	Expenses and keeping team.....	21 00
8	Hechinger & Dickeman.....	Blacksmith work	5 10
9	Robert Morris	Right of way at Columbus.....	20 00
10	John J. Eberle.....	Repairing lock-house at Chillicothe.	4 10
11	Adam Wamser	Repairing harness, etc	10 70
12	Vallery and Gardner.....	Livery	1 00
13	A. Hellmuth	Pillows	6 00
14	Geo. J. Herrnstein	Lumber	7 78
15	Ed. Reed	Lumber	5 40
16	Henry Simpson	Lumber	11 20
17	J. H. & F. A. Sells.....	Harness	16 00
18	John Dice	Livery	15 75
19	W. A. Empie.....	Harness	2 50
20	Chas. E. Perkins	Expenses as chief engineer.....	3 00
	Pay roll, officers.....	Salaries	369 98
	Pay roll No. 1.....	Labor	233 50
	Pay roll No. 2.....	Labor	149 25
	Pay roll No. 3.....	Labor	270 50
	Total for month.....	.....	\$1,274 55

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
DECEMBER, 1900.			
1	W. H. Reed.....	Livery	4 00
2	Freeman & Conkle	Livery	2 75
3	Crist Bros	Hardware	13 79
4	C. W. Smith	Hardware	8 26
5	C. W. Smith	Hardware	9 45
6	John Miller	Blacksmith work	7 75
7	J. E. Rowan	Blacksmith work	75
8	C. W. Watkins	Keeping team, etc.	21 00
9	P. Brewer	Keeping team, etc.	21 50
10	Geo. H. Watkins	Expenses as superintendent	54 25
11	Henry Kimball	Lumber	353 60
12	J. H. Lynch	Lumber	41 22
13	S. N. Cutler & Son	Rope	1 24
14	C. Shoemaker	Stone	43 75
15	F. A. Oberer	Repairing harness	4 05
16	H. C. Brandle	Rubber boots	10 00
17	Sells & Co.	Coal	7 50
18	W. H. Kirkendall	Keeping team	22 00
19	Chas E. Perkins	Expenses as chief engineer	2 00
	Pay roll, officers	Salaries	369 98
	Pay roll No. 1	Labor	226 50
	Pay roll No. 2	Labor	175 75
	Pay roll No. 3	Labor	199 25
	Total for month		\$1,600 34
JANUARY, 1901.			
1	Geo. W. Clark	Lumber	174 43
2	Gehres Bros	Lumber	4 15
3	Gehres Bros	Lumber	8 30
4	Geo. E. Breece	Lumber	34 00
5	Geo. E. Breece	Lumber	13 27
6	Wilson H. Moyst	Blacksmith work	5 95
7	Heckinger & Dickerman	Blacksmith work	2 70
8	J. E. Rowan	Blacksmith work	3 00
9	Geo. Keiser	Blacksmith work	5 85
10	Home Tel. Co., Chillicothe	Telephone messages	2 65
11	Home Tel. Co., Waverly	Telephone messages	5 65
12	Wm. Patton	Expenses as collector	2 60
13	A. H. Reutinger	Expenses as collector	4 75
14	W. H. Kirkendall	Keeping team and other expenses	22 00
15	P. Brewer	Keeping team and other expenses	23 00
16	C. W. Watkins	Keeping team and other expenses	21 00
17	Geo. H. Watkins	Expenses as superintendent	48 50
18	C. Benford & Son	Hardware	4 70
19	J. L. Brown	Livery	6 00
20	Adam Wamser	Harness, etc.	4 50
21	N. & W. Ry. Co.	Freight	58 26
22	W. H. Kirkendall	Expense account	5 00
	Pay roll, officers	Salaries	369 98
	Pay roll No. 1	Labor	264 50

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	Pay roll No. 2.....	Labor	205 50
	Pay roll No. 3.....	Labor	159 25
	Total for month.....		\$1,459 49
	FEBRUARY, 1901.		
1	Geo. H. Watkins	Expenses as superintendent.....	50 25
2	W. H. Kirkendall.....	Keeping team, etc.....	26 25
3	P. Brewer	Keeping team, etc.....	22 25
4	C. W. Watkins.....	Keeping team, etc.....	21 75
5	J. A. Breinig	Hardware	5 82
6	Wissler & Purdum	Hardware	14 16
7	Heckinger & Dickerman.....	Blacksmith work	1 60
8	Wilson H. Moyst	Blacksmith work	1 60
9	Frank Hoffman	Sash for lock house.....	5 55
10	H. Cook	Wall paper for lock house.....	4 95
11	Jas. H. Lynch	Lumber	105 45
12	Ed. Reed	Lumber	54 83
13	Blade Printing Co.....	Printing	11 10
	Pay roll, officers.....	Salaries	369 98
	Pay roll No. 1.....	Labor	278 75
	Pay roll No. 2.....	Labor	103 00
	Pay roll No. 3.....	Labor	169 25
	Total for month.....		\$1,246 54
	MARCH, 1901.		
1	James A. Breining.....	Hardware	5 40
2	Wissler & Purdum.....	Hardware	7 98
3	Spitznagle Hdw. Co.....	Hardware	6 25
4	Bowen & Billings	Hardware	20 70
5	J. C. Hibbs Hdw. Co.....	Hardware	3 50
6	W. H. Kirkendall	Expenses keeping team, etc.....	26 50
7	P. Brewer	Expenses keeping team, etc.....	21 50
8	C. W. Watkins.....	Expenses keeping team, etc.....	21 00
9	Geo. H. Watkins.....	Expenses as superintendent.....	48 25
10	Wilson Moyst	Blacksmithing	5 30
11	Heckerman & Dickerman.....	Blacksmithing	2 60
12	Geo. Keiser	Blacksmithing	4 05
13	Ed. Myers	Hanging wall paper.....	10 87
14	Jas. R. Jackson	Lime, etc.....	20 25
15	Union Herald Co.....	Printing	1 00
16	Philip Lorbach	Repairing harness	2 75
17	W. S. Mayhew	Team of horses.....	235 00
18	Seth Knoch, agent.....	Lumber	83 00
19	Wykoff, Searman & Bene- dict	Expenses for type writing machine..	15 00
20	Samuel Bachtell	Traveling expense as asst. engineer..	2 00
	Pay roll, officers.....	Salaries	369 98
	Pay roll No. 1.....	Labor	368 00

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	Pay roll No. 2.....	Labor	272 00
	Pay roll No. 3.....	Labor	191 75
	Total for month.....		\$1,744 63
	APRIL, 1901.		
1	Geo. H. Watkins.....	Expenses as superintendent.....	60 30
2	P. Brewer	Keeping team, etc.....	21 75
3	C. W. Watkins.....	Keeping team, etc.....	21 75
4	W. H. Kirkendall.....	Keeping team, etc.....	25 00
5	Gehres Bros	Lumber	37 81
6	G. E. Breece	Lumber	6 00
7	Ed. Reed	Lumber	19 80
8	Tewksberry & Addis	Lumber	41 96
9	Schoedinger, Fern & Co..	Lumber	1 50
10	John McEwing	Hardware	54 00
11	Lefebure & Co.....	Hardware	1 25
12	C. Benford & Son.....	Hardware	22 38
13	C. W. Smith	Hardware	23 12
14	J. A. Breining.....	Hardware	10 50
15	Geo. Keiser.....	Blacksmithing	6 30
16	J. E. Rowan.....	Blacksmithing	75
17	Heckinger & Dickerman.....	Blacksmithing	1 70
18	S. M. Lewis.....	Brick	16 50
19	E. & O. E. Miles.....	Cement	32 90
20	Adam Wamser	Harness and repairing.....	4 00
21	A. H. Dean.....	Paints and oils.....	41 85
22	W. H. Albaugh & Co.....	Livery	8 50
23	F. Earl Dewese.....	Horse covers	6 00
24	G. Hartmeyer	Muslin	2 63
25	Joshua Oakes & Co.....	Piling	81 60
26	Norfolk & Western Ry. Co..	Freight	84 04
27	Norfolk & Western Ry. Co..	Freight	17 03
28	House Telephone Co.....	Telephone messages.....	2 05
29	Henry Kimball	Heavy timbers	489 86
30	Wm. T. McLean.....	For clerical services from April 1, to May 1, 1901.....	20 84
31	Samuel Bachtell	Traveling expense as asst. engineer..	10 00
	Pay roll, officers.....	Salaries	369 98
	Pay roll No. 1.....	Labor	592 00
	Pay roll No. 2.....	Labor	255 50
	Pay roll No. 3.....	Labor	281 31
	Total for month.....		\$2,672 45
	MAY, 1901.		
1	Geo. H. Watkins.....	Expenses as superintendent.....	53 70
2	P. Brewer	Keeping team, etc.....	27 71
3	C. W. Watkins.....	Keeping team, etc.....	21 50
4	W. H. Kirkendall.....	Keeping team, etc.....	27 80
5	J. P. Gartner	Lumber	71 80

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
6	Chillicothe Lumber Co.....	Lumber	7 16
7	J. W. Ray.....	Lumber	21 24
8	Gehres Bros	Lumber	9 76
9	E. Humphreys	Hardware	4 21
10	L. Schwartz	Hardware	7 92
11	Chas. F. Smith's Sons.....	Hardware	18 41
12	Schoedinger, Fearn & Co....	Hardware	23 56
13	C. Benford & Sons.....	Hardware	24 28
14	J. D. Blazer	Blacksmithing	3 10
15	Lumbeck & McConnell	Livery	3 50
16	Vallery & Gardner	Livery	6 00
17	Kinnear & Co.....	Livery	6 00
18	Constant Lake	Veterinary services	35 00
19	Wm. Apple	Stone	36 00
20	Home Telephone Co.....	Telephone services	2 95
21	H. C. Brandle	Rubber boots	10 00
22	S. W. Jones, executor.....	Gravel	12 50
23	F. M. Deweese.....	Repairing	1 50
24	Geo. H. Fickardt & Son....	Paint	14 30
25	Roth Brothers	Tallow, etc	3 24
26	John M. Cockrell	Lumber	13 16
27	Wm. T. McLean	For clerical services from May 1, to June 1, 1901.....	20 84
28	C. E. Perkins.....	Traveling expense as chief engineer.	10 00
	Pay roll, officers.....	Salaries	369 98
	Pay roll No. 1.....	Labor	453 50
	Pay roll No. 2.....	Labor	411 74
	Pay roll No. 3.....	Labor	283 25
	Pay roll No. 4.....	Labor	501 00
	Pay roll No. 5.....	Labor	31 50
	Total for month.....		\$2,548 11
	JUNE, 1901.		
1	P. Brewer	Keeping team, etc.....	23 40
2	C. W. Watkins.....	Keeping team, etc.....	22 00
3	W. H. Kirkendall.....	Keeping team, etc.....	25 60
4	Geo. H. Watkins.....	Expenses as superintendent.....	57 75
5	Schoedinger, Fearn & Co....	Hardware	71 45
6	J. C. Hibbs Hdw. Co.....	Hardware	2 65
7	Mendenhall Bros. & Guth....	Hardware	5 45
8	J. A. Breinig	Hardware	4 37
9	Frederick Young	Hardware	7 00
10	Wissler & Purdum.....	Hardware	31 64
11	Hildreth & Martin	Lumber	8 79
12	V. H. Bond.....	Lumber	2 50
13	D. L. Webb.....	Lumber	95 03
14	A. C. Morris & Co.....	Lumber	11 75
15	Geo. Keiser	Blacksmithing	2 45
16	Heckinger & Dickerman.....	Blacksmithing	2 55
17	Gilbert Reider	Brick	33 00
18	Graham, Jardine & Co.....	Brick	7 20
19	Union Coal Co.....	Cement	28 00

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
20	Cols. Tent and Awning Co..	Awning	5 60
21	W. A. Empie.....	Repairing harness	1 45
22	Myers & Kinney	Table	4 50
23	Chas. E. Perkins	Expense as chief engineer.....	10 00
	Pay roll, officers.....	Salaries	369 98
	Pay roll No. 1.....	Labor	657 00
	Pay roll No. 2.....	Labor	385 25
	Pay roll No. 3.....	Labor	476 00
	Total for month.....		\$2,352 32
	JULY, 1901.		
1	Wissler & Purdum.....	Hardware	10 75
2	J. A. Breinig.....	Hardware	26 34
3	C. Benford & Son.....	Hardware	11 87
4	Schoedinger, Fearn & Co..	Hardware	45 67
5	Hall-Collins Hdw. Co.....	Hardware	4 00
6	Hoffman, Brown & Co....	Hardware	1 50
7	August Schneider	Blacksmithing	22 75
8	W. H. Reed	Livery	4 00
9	Nelson Wolfley	Livery	6 35
10	Kinnear & Co.....	Livery	11 50
11	T. M. Lynn.....	Livery	4 50
12	Willson H. Moyst.....	Blacksmithing	11 52
13	Jacob Doster	Blacksmithing	3 20
14	A. L. Morris	Blacksmithing	4 50
15	Heckinger & Dickerman ..	Blacksmithing	2 75
16	Colonial Carriage Co.....	Blacksmithing	31 25
17	Morgan Wood	Lumber	7 00
18	Ed. Reed	Lumber	15 61
19	C. J. Moulton.....	Lumber	3 24
20	F. Earl Deweese.....	Harness	5 25
21	Jacob Hedges	Cleaning culvert	25 00
22	Union Herald	Printing	1 50
23	P. Brewer	Keeping team, etc.....	22 00
24	W. H. Kirkendall.....	Keeping team, etc.....	25 00
25	C. W. Watkins	Keeping team, etc.....	21 00
26	Geo. H. Watkins.....	Expense as superintendent.....	54 15
27	Western Union Tel. Co....	For telegraphic service rendered...	3 39
28	Henry Kinnball	Timber	234 00
	Pay roll, officers.....	Salaries	369 98
	Pay roll No. 1.....	Labor	698 25
	Pay roll No. 2.....	Labor	267 25
	Pay roll No. 3.....	Labor	295 75
	Total for month.....		\$2,250 82
	AUGUST, 1901.		
1	Geo. H. Watkins.....	Expenses as superintendent	53 55
2	W. H. Kirkendall.....	Expenses keeping team.....	20 00
3	P. Brewer	Expenses keeping team.....	23 00
4	C. W. Watkins.....	Expenses keeping team.....	22 00

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
5	C. Benford & Son.....	Hardware	35 68
6	Christ Bros	Hardware	7 83
7	Hoffman, Brown & Wilson.....	Hardware	32 85
8	John McEwing	Hardware	17 70
9	J. A. Breinig.....	Hardware	11 45
10	J. W. Wilson	Hardware	11 70
11	C. W. Smith.....	Hardware	32 35
12	Ed. Reed	Lumber	24 46
13	Ed. Reed	Lumber	7 90
14	Chillicothe Lumber Co.....	Lumber	16 80
15	Geo. E. Breece.....	Lumber	97 39
16	Gehres Bros	Lumber	12 70
17	Graham, Jardine & Co.....	Brick	11 50
18	Gilbert Rieder	Brick	11 00
19	Geo. A. Bauersocks.....	Brick	11 00
20	Geo. Keiser	Blacksmithing	3 75
21	W. H. Baker.....	Blacksmithing	1 95
22	Howald & Conklin.....	Bedding, etc., for dredge boat.....	64 10
23	Vallery & Gardner	Livery	9 50
24	Geo. H. Fickhardt & Son.....	Paint, etc	51 28
25	J. F. Schleyer	Coal	40 00
26	Union Coal Co.....	Lime and cement.....	12 20
27	Philip Lohrbach	Repairing harness	2 45
28	G. Hartmeyer.....	Duck	1 20
29	Jas. H. Lynch	Gunny bags	5 85
30	Adam Wamser	Harness	18 85
31	W. H. Kirkendall.....	Expenses	9 99
32	Western Union Tel. Co.....	For telegraphic service rendered....	1 88
33	Geo. E. Breece.....	For lumber furnished.....	165 88
34	Chas. F. Perkins.....	Traveling expenses as chief engineer.	3 50
	Pay roll, officers.....	Salaries	369 98
	Payroll No. 1.....	Labor	496 00
	Pay roll No. 2.....	Labor	552 63
	Pay roll No. 3.....	Labor	579 60
	Pay roll No. 4.....	Labor (dredge).....	121 50
	Total for month.....		\$2,972 95
	SEPTEMBER, 1901.		
1	W. H. Kirkendall.....	Expense account	6 00
2	W. H. Kirkendall.....	Keeping team, etc.....	22 00
3	Geo. H. Watkins.....	Expense as superintendent.....	52 10
4	C. W. Watkins.....	Keeping team, etc.....	21 00
5	Pinknev Brewer	Keeping team, etc.....	22 30
6	Tewksberry & Addis	Lumber	416 95
7	Frank Hoffman	Lumber	6 91
8	Reed & Marshall.....	Lumber	20 19
9	Schoedinger, Fearn & Co....	Hardware	17 73
10	J. A. Breinig.....	Hardware	25 07
11	Wissler & Purdum.....	Hardware	12 65
12	Heckinger & Dickerman....	Blacksmithing	11 05
13	John McEwing	Blacksmithing	6 80
14	Jacob Doster	Blacksmithing	2 45

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
15	Limbeck & McConnell	Livery	7 00
16	O. E. Niles	Cement	4 00
17	S. M. Lewis	Brick	10 00
18	C. Benford & Son.....	Rope	21 21
19	J. F. Schleyer.....	Coal	16 60
20	George Cole	Labor and teams furnished.....	12 00
21	C. E. Perkins	Traveling expense as chief engineer..	7 00
	Pay roll, officers.....	Salaries	369 98
	Pay roll No. 1.....	Labor	311 00
	Pay roll No. 2.....	Labor	533 50
	Pay roll No. 3.....	Labor	241 00
	Pay roll No. 4.....	Labor (dredge).....	273 30
	Total for month.....		\$2,449 79
	OCTOBER, 1901.		
1	Geo. H. Watkins.....	Expenses as superintendent.....	49 51
2	P. Brewer	Keeping team, etc.....	23 50
3	C. W. Watkins.....	Keeping team, etc.....	21 00
4	W. H. Kirkendall.....	Keeping team, etc.....	20 00
5	Ed. Reed	Lumber	25 55
6	Hildreth & Martin.....	Lumber	46 97
7	John M. Cockerill.....	Lumber	158 78
8	G. E. Breece.....	Lumber	6 33
9	C. Benford & Son.....	Hardware	8 61
10	Wissler & Purdum	Hardware	5 95
11	J. A. Breinig	Hardware	39 60
12	A. P. Bailey	Stone	25 00
13	J. F. Schleyer.....	Coal (for dredge).....	20 00
14	Geo. H. Fickhardt & Son....	Oil (for dredge).....	12 00
15	J. G. Wilder.....	Oil (for dredge).....	4 75
16	Christ Bros	Stove pipe	60
17	Chas. B. McClellan	Cutting weeds	45 00
18	G. Hartmeyer	Linoleum	8 25
19	Kinnear & Co.....	Livery	14 00
20	Hechinger & Dickeman.....	Blacksmithing	20 40
21	Theo Landis	Blacksmithing	3 00
22	Home Telephone Co.....	Telephone	2 20
23	W. H. Kirkendall.....	Expense account	7 00
24	N. & W. Ry. Co.....	Freight	16 50
25	The Portsmouth Mach. Co..	For material furnished.....	25 27
26	Wykoff, Seamans & Bene- dict	For type writer table.....	4 75
27	C. E. Perkins	Traveling expense as chief engineer..	6 50
	Pay roll, officers.....	Salaries	369 98
	Pay roll No. 1.....	Labor	248 75
	Pay roll No. 2.....	Labor	643 50
	Pay roll No. 3.....	Labor	202 75
	Pay roll No. 4.....	Labor (dredge).....	276 50
	Total for month.....		\$2,362 50

ABSTRACT OF MONEY PAID

By Chas. Cooper, Superintendent Division No. 1, Subdivision No. 3, Miami and Erie canal, for Material and Labor for the Maintenance and repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
NOVEMBER, 1900.			
1	W. A. Gregg.....	Expense account	5 71
2	Chas. T. Hayman	Expense account	64 80
3	Wash. Irwin	Groceries	27 17
4	Wash. Irwin	Keeping team for State boat No. 1...	21 05
5	Hayman & Co.	Livery	20 00
6	City & Sub Tel. Assn.....	Telephone	15 00
7	Joseph T. Kaelin.....	Blacksmith work	3 00
8	Tweedie & Cluxton	Repairs	1 10
9	Henry Ihlendorf	Livery	3 00
10	Emil H. Guth.....	Blacksmith work	13 60
11	J. W. Sullivan.....	Expense account	4 58
12	J. W. Sullivan.....	House rent.....	8 34
13	French Whitehead	House rent	8 00
14	J. W. Gorman	House rent	6 00
15	J. W. Montgomery.....	Lumber	121 48
16	Denny & Simpson.....	Lumber	68 02
17	R. V. Denny	Expense account.....	7 40
18	H. F. Eyer.....	Expense account	24 65
19	C. C. Fouts.....	Hardware	38 62
20	A. Ritter	Blacksmith work	17 06
21	T. H. Corson.....	Expense account	12 30
22	Chas. Cooper	Expense account and salary.....	91 20
23	Samuel Bachtell	Traveling expense as asst. engineer..	6 00
24	Chas. E. Perkins.....	Traveling expense as chief engineer..	26 00
	Pay roll, officers.....	Salaries	519 17
	Pay roll No. 1.....	Labor	285 00
	Pay roll No. 2.....	Labor	210 50
	Pay roll No. 3.....	Labor	75 00
	Pay roll No. 4.....	Labor	50 00
	Total for month.....		\$1,753 75
DECEMBER, 1900.			
1	W. A. Gregg.....	Expense account	5 51
2	Chas. Cooper	Expense account	59 30
3	Wash. Irwin	Keeping team for State boat No. 1...	20 00
4	Lockland Dry Dock Co.....	Repairing State boat "C. T. Hayman"	51 50
5	Lockland Dry Dock Co.....	Labor and material for dredge No. 6.	47 25
6	City and Sub. Tel. Assn.....	Telephone rent for three months....	18 00
7	Chas. Kobmann	Making 1 galvanized iron boat pump.	4 75
8	Hennegan & Co.....	Five hundred bill heads for collector's office	1 50
9	Henry F. Eyer.....	Keeping team for State boat No. 2 and repairing Franklin lock.....	21 85
10	French Whitehead	House rent for December.....	8 00
11	J. W. Sullivan.....	House rent for December.....	8 34
12	J. W. Sullivan.....	Expense account	3 00
13	Lockland Lumber Co.....	Pike pole	1 50

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
14	John Muller	One ton of coal	3 50
15	T. H. Corson	Expense account	1 65
16	R. V. Denny	Expense account	1 40
17	Wm. Herald	Blacksmith work	2 25
18	J. W. Gorman	Rent for lock house for December ..	6 00
19	Chas. T. Hayman	Expense account and salary	73 40
20	J. D. Malone	Services and traveling expenses	15 00
21	Chas. E. Perkins	Expenses as chief engineer	15 50
	Pay roll, officers	Salaries	564 17
	Pay roll No. 1	Labor	159 00
	Pay roll No. 2	Labor	60 50
	Pay roll No. 3	Labor	75 00
	Pay roll No. 4	Labor	50 00
	Total for month		\$1,277 87
	JANUARY, 1901.		
1	W. A. Gregg	Expense account	6 45
2	Chas. Cooper	Expense account	59 80
3	Wash. Irwin	Keeping team for State boat No. 1 ..	20 40
4	The Dayton G. I. Works ..	Material for dredge No. 6	38 50
5	John Muller	Coal for dredge No. 6	3 50
6	Max Sierweld	Coal for Cincinnati office	3 00
7	J. W. Sullivan	Rent	8 34
8	J. W. Sullivan	Expense account	2 21
9	French Whitehead	Rent	8 00
10	J. W. Gorman	Rent	6 00
11	R. V. Denny	Expense account	1 40
12	T. H. Corson	Expense account	1 20
13	William Sheedy	Expense account	5 18
14	Henry F. Eyer	Keeping team for State boat No. 2 ..	21 20
15	H. J. Gerhard	Repairs on Hamilton lock house	4 15
16	L. Kruckenmeyer	Oil stove, can and oil	5 50
17	L. E. Datzaner	Repairing harness, State boat No. 1 ..	2 25
18	Mrs. Connell	Hauling cinders	1 50
19	Lockland Lumber Co.	Two-horse team and man	1 25
20	C. Crane & Co.	Lumber for dredge No. 6	19 95
21	Wm. T. McLean	Expense attending board meeting in Cincinnati	8 50
22	C. E. Perkins	Expense account as chief engineer ..	15 75
	Pay roll, officers	Salaries	519 17
	Pay roll No. 1	Labor	183 00
	Pay roll No. 2	Labor	93 50
	Pay roll No. 3	Labor	75 00
	Pay roll No. 4	Labor	115 15
	Total for month		\$1,229 85
	FEBRUARY, 1901.		
1	W. A. Gregg	Expense account	4 70
2	J. W. Sullivan	Expense account	1 45
3	T. H. Corson	Expense account	97

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
4	R. V. Denny.....	Expense account	1 40
5	Chas. Cooper	Expense account	60 45
6	J. W. Sullivan.....	Lock house rent for February.....	8 34
7	French Whitehead	Lock house rent for February.....	8 00
8	J. W. Gorman.....	Lock house rent for February.....	6 00
9	Wash. Irwin	Keeping State boat team.....	20 00
10	Henry F. Eyer.....	Keeping State boat team and repair- ing cart	21 20
11	William Herold	Blacksmith work.....	2 60
12	Max Sierelveld	One ton of coal for collector's office.....	3 00
13	Thomas Connerton	Cook stove for dredge No. 6.....	16 00
14	McSherry Mnfg. Co.....	Wicket steps and collars for new lock gates	21 80
15	A. Ritter	Blacksmith work	10 76
16	Emil Guth	Blacksmith work.....	8 80
17	Jas. B. Blettner & Co.....	Iron work in dredge No. 6.....	36 27
18	C. Crane & Co.....	2,004 feet of oak lumber.....	40 08
19	C. E. Perkins.....	Traveling expense as chief engineer.....	20 00
20	Samuel Bachtell	Traveling expense as asst. engineer.....	6 00
	Pay roll, officers.....	Salaries	519 17
	Pay roll No. 1.....	Labor	169 50
	Pay roll No. 2.....	Labor	86 00
	Pay roll No. 3.....	Labor	75 00
	Pay roll No. 4.....	Labor	58 82
	Total for month.....		\$1,206 31
	MARCH, 1901.		
1	W. A. Gregg.....	Expense account	4 45
2	T. H. Corson.....	Expense account	1 40
3	J. W. Sullivan	Expense account	4 20
4	R. V. Denny.....	Expense account	1 20
5	Wm. Sheedy	Expense account	4 15
6	Charles Cooper	Expense account	58 30
7	J. W. Sullivan	House rent for March.....	8 34
8	French Whitehead	House rent for March.....	8 00
9	J. W. Gorman.....	House rent for March.....	6 00
10	City Sub. Tel. Assn.....	Service	18 00
11	Skillman & Son.....	Freight bill	2 00
12	Henry F. Eyer.....	Keeping team for State boat No. 2 and car fare	20 95
13	Wash. Irwin	Keeping team for State boat No. 1 and window glass.....	20 65
14	Skillman & Son.....	Freight bill	75
15	M. Joker, Jr.....	One-half doz. deck brooms.....	1 50
16	Johnson Bros	Hardware	72
17	E. Bowen	79 lbs. No. 5-8 Manila rope.....	9 48
18	Denny & Simpson.....	Lumber	8 05
19	C. Crane & Co.....	Lumber	20 16
20	The Philip Carey Mnfg. Co.....	Cement roofing	25 00
21	R. E. Kroenig & Co.....	Steam pipe covering, dredge No. 6..	19 50
22	Frank Koehler	Hardware for dredge No. 6.....	6 10
23	Frank Koehler	Hardware for State boat No. 2.....	14 35

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
24	Frank Koehler	Hardware for State boat No. 1.....	37 30
25	Frank Koehler	Rope for dredge No. 6.....	3 90
26	Standard Oil Co.....	Oil for dredge No. 6.....	8 00
27	McIlvain & Spiegel.....	Repairing dredge No. 6.....	45 81
28	A. H. Vorhis.....	Livery	2 00
29	Thomas I. Bell & Co.....	Hardware for dredge No. 6.....	7 35
30	Chas. Kattman	Glass and white lead, dredge No. 6.	1 37
31	E. Bowen	Manila rope for dredge No. 6.....	5 76
32	John Muller	Coal for dredge No. 6.....	3 50
33	Stearns & Foster.....	Labor	90
34	A. Ritter	Blacksmith work.....	3 55
35	Buckeye Wreck. & Salv. Co.	Lumber	29 04
36	Emil Guth	Blacksmithing for dredge No. 6....	39 10
37	Wykoff, Seamans & Bene- dict	To expense for type writing machine.	10 00
38	Samuel Bachtell	Traveling expenses as asst. engineer.	14 00
39	C. E. Perkins.....	Traveling expense as chief engineer.	16 50
	Pay roll, officers.....	Salaries	519 17
	Pay roll No. 1.....	Labor	196 91
	Pay roll No. 2.....	Labor	128 00
	Pay roll No. 3.....	Labor	78 00
	Pay roll No. 4.....	Labor	207 75
	Total for month.....		\$1,621 16
	APRIL, 1901.		
1	W. A. Gregg.....	Expense as collector	5 30
2	J. W. Sullivan.....	Expense as collector	3 35
3	T. H. Corson.....	Expense as collector	2 40
4	Charles Cooper	Expense as superintendent.....	60 35
5	R. V. Denny.....	Expense account	2 75
6	J. W. Sullivan.....	For lock house rent for April.....	8 34
7	J. W. Gorman.....	For lock house rent for April.....	6 00
8	French Whitehead	For lock house rent for April.....	8 00
9	Lockland Dry Dock Co.....	Lumber and labor on dredge.....	111 67
10	Lockland Dry Dock Co.....	Materials and labor on State boat...	112 04
11	Lockland Dry Dock Co.....	Materials and labor on State boat...	114 18
12	Lockland Dry Dock Co.....	Materials and labor on State boat...	123 87
13	Wash. Irwin	Feed and care of State's team and other expenses	22 10
14	H. F. Eyler	Feed and care of State's team and other expenses	21 90
15	The City and Sub. Tel. Assn.	For services rendered.....	21 00
16	W. L. Comer	Coal for dredge	21 00
17	Evans & Schenck	Coal for dredge	41 41
18	P. P. Maxwell.....	Coal for dredge	44 88
19	P. P. Maxwell.....	Coal for dredge	34 15
20	P. P. Maxwell.....	Teaming	1 00
21	J. H. Kohmescher & Co.....	Rubber boots	59 67
22	Charles Cooper	Expenses for livery.....	4 50
23	L. G. Anderson & Sons.....	Lumber furnished	3 75
24	Denny & Simpson	Lumber furnished	83 59

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
25	Samuel H. Taft.....	Lumber furnished	8 00
26	Louis Engle	Carpenter work	2 00
27	William Sheedy.....	Boarding drivers while towing dredge	3 00
28	John Muller	Feed furnished for teams towing dredge	3 81
29	The Harding Paper Co.....	Material furnished	1 10
30	Seeman Brothers	Labor and material furnished.....	9 71
31	G. R. Rossman & Co.....	Material furnished	1 63
32	A. Ritter	Material furnished	7 25
33	John Nolan	Blacksmithing work	3 75
34	Joseph T. Kaelin	Blacksmithing work	3 00
35	C. C. Foutz	Hardware furnished	6 80
36	Frank Koehler	Hardware furnished	5 55
37	Allen Brown	Plastering lock house.....	26 00
38	Wm. T. McLean.....	For clerical services from April 1, to May 1, 1901.....	13 89
39	Samuel Bachtell	Traveling expenses as asst. engineer..	17 00
40	Chas E. Perkins.....	Traveling expense as chief engineer..	23 00
41	Christ. & Marg. Helwage..	For damages sustained.....	375 00
	Pay roll, officers.....	Salaries	519 17
	Pay roll No. 1.....	Labor	392 00
	Pay roll No. 2.....	Labor	293 00
	Pay roll No. 3.....	Labor	75 00
	Pay roll No. 4.....	Labor	246 62
	Total for month.....		\$2,953 48
	MAY, 1901.		
1	W. A. Gregg	Expense account	4 25
2	J. W. Sullivan.....	Expense account	2 85
3	T. H. Corson	Expense account	1 53
4	R. V. Denny.....	Expense account	6 30
5	Charles Cooper	Expense account	64 90
6	J. W. Sullivan.....	Rent of lock house.....	8 34
7	French Whitehead	Rent of lock house.....	8 00
8	J. W. Gorman.....	Rent of lock house.....	6 00
9	Wash. Irwin	Keeping team State boat No. 1, and trip to Middletown.....	29 25
10	H. F. Eyler	Keeping team State boat No. 2 and other expenses	24 40
11	Denny and Simpson.....	Lumber	25 44
12	Lockland Lumber Co.....	Lumber	75
13	L. G. Anderson & Sons.....	Lumber	9 17
14	J. W. Montgomery.....	Lumber	196 25
15	W. C. Peal & Bros.....	Oil	6 61
16	Johnson & Co	Oil	4 05
17	O. G. Rightmire.....	Oil cloth for State boat No. 1.....	4 75
18	A. Ritter	Blacksmithing	12 05
19	Emil H. Guth.....	Blacksmithing	2 60
20	M. J. Jokers, Jr.....	1 dozen brooms for State boat No. 1..	1 20
21	J. Henshaw & Sons	50 chairs loaned for inspection trip..	5 00
22	A. Jonte & Sons.....	4 dozen glasses.....	2 40

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
23	Frank X. Seegmuller	½ dozen maple blocks	60
24	Richardson Paper Co.	Coal for dredge No. 6.	45 20
25	Frank Koehler	5 kegs nails	14 00
26	Allen Brown	Plastering lock house	1 25
27	Henry Osborn	Livery	1 25
28	Gunther Bros. Co.	Livery	2 50
29	F. M. Zumstein	Livery	4 00
30	Patterson Tool & Supply Co.	Packing and supplies, dredge No. 6.	6 35
31	Seeman Brothers	Supplies and labor	7 75
32	Julius Wittich	Cylinder oil for dredge No. 6.	4 90
33	Review Publishing Co.	Time blanks and notice blanks	5 00
34	National Starch Co.	Removing dirt from canal bank.	50 00
35	H. S. Conover	Alligator wrench	50
36	C. C. Foutz	Hardware	9 70
37	The Dayton Globe Iron Wks	Grate bars for dredge No. 6.	18 80
38	Samuel Bachtell	Traveling expenses as asst. engineer. For clerical services from May 1 to June 1, 1901.	8 50 13 88
40	C. E. Perkins	Traveling expenses as chief engineer.	22 50
	Pay roll, officers	Salaries	522 17
	Pay roll No. 1	Labor	404 00
	Pay roll No. 2	Labor	372 50
	Pay roll No. 3	Labor	75 00
	Pay roll No. 4	Labor	273 00
	Total for month		\$2,289 74
	JUNE, 1901.		
1	W. A. Gregg	Expense account	4 67
2	J. W. Sullivan	Expense account	3 15
3	R. V. Denny	Expense account	2 50
4	Charles Cooper	Expense account	61 40
5	J. W. Sullivan	Rent for lock house	8 34
6	French Whitehead	Rent for lock house	8 00
7	J. W. Gorman	Rent for lock house	6 00
8	Wash. Irwin	Keeping and feeding State team for repair boat No. 1, etc.	21 85
9	Henry F. Eyler	Keeping and feeding State team for repair boat No. 2, etc.	21 00
10	T. H. Corson	Expense account	3 70
11	A. Ritter	Blacksmithing	16 20
12	Jos. K. Alward	Blacksmithing	2 00
13	Frank Koehler	Hardware	13 15
14	C. C. Foutz	Hardware	14 60
15	Denny & Simpson	Lumber	48 93
16	J. W. Montgomery	Lumber	188 01
17	Samuel H. Taft	Lumber	12 24
18	Phil. Dilg	Horse and hauling rubbish	3 00
19	W. F. Gillham	Cement	20 00
20	Charles Cooper	Expense, inspecting works between Cincinnati and Middletown.	47 00
21	Henry Ihlendorf	Livery hire	6 00

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
22	The Williams Directory Co.	Directory of Cincinnati for collector's office	7 00
23	Pat. Mallaley	Horse and cart	5 50
24	C. & A. Kreimer Co.	6 stools for dredge boat No. 6.	3 00
25	Howard E. Stamm.	Plastering Franklin lock house.	24 00
26	Cit. & Sub. Tel. Assn.	Telephone at collector's office in Cincinnati	18 60
27	Cit. & Sub. Tel. Assn.	Telephone at State's house.	18 00
28	John Eger	Striped awnings for State boats Nos. 1 and 2.	32 88
29	Thomas Dowling	Plastering at State's house.	6 50
30	Benj. Smith	Livery and hauling gravel.	81 40
31	Wm. Sheedy	Expense account	1 00
32	Julius Wittich	Oil for dredge No. 6.	6 75
33	Jacoby Hardware Co.	Hardware	2 99
34	Standard Oil Co.	Oil for dredge No. 6.	4 60
35	S. G. McColloch.	Traveling expenses as secretary.	14 70
36	C. E. Perkins.	Traveling expenses as chief engineer.	17 00
37	Samuel Bachtell	Traveling expenses as asst. engineer.	16 00
	Pay roll, officers.	Salaries	567 17
	Pay roll No. 1.	Labor	387 50
	Pay roll No. 2.	Labor	299 00
	Pay roll No. 3.	Labor	75 00
	Pay roll No. 4.	Labor	254 75
	Pay roll No. 5.	Labor	45 00
	Pay roll No. 6.	Labor	82 00
	Total for month.		\$2,482 08
	JULY, 1901.		
1	W. A. Gregg.	Expense account	6 71
2	J. W. Sullivan.	Expense account	3 05
3	T. H. Corson	Expense account	2 80
4	R. V. Denny	Expense account	3 60
5	William Sheedy	Expense account	2 00
6	Charles Cooper	Expense account	62 90
7	J. W. Sullivan	Rent of lock house	8 34
8	French Whitehead	Rent of lock house	8 00
9	J. W. Gorman	Rent of lock house	6 00
10	John Class	Blacksmithing	2 00
11	Jas. K. Aylward	Blacksmithing	3 00
12	A. Ritter	Blacksmithing	20 25
13	Ritter & Kenthan	Lock wickets	23 08
14	Joseph T. Kaelin	Blacksmithing	3 50
15	Shartel & Bevis	Iron work and labor	10 78
16	Frank Koehler	Hardware	8 15
17	Ritter, Harn. & Buggy Co.	Harness repairing and supplies.	4 25
18	Wash. Irwin	Keeping and feeding state boat team No. 1	20 00
19	Henry Eyler	Keeping and feeding state boat team No. 2	22 00
20	Denny & Simpson	Lumber	80 02
21	Albert Hebenstreet	Lumber	65 66

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
22	Seeman Brothers	Oil and cap screws	1 40
23	W. C. Peale & Bro.....	Paints	6 18
24	E. Bowen	Manilla rope	2 64
25	John Messner	Hauling tree and chopping up same.	2 50
26	Louis Martin	Teams, one day	4 00
27	Jos. Bohner	Ston cock and labor	2 00
28	John Eger	Awning for dredge boat No. 6.....	16 00
29	Philip Carey Mnfg. Co.....	Asbestos cement for dredge No. 6.	1 00
30	P. P. Maxwell.....	7½ bbls. Tiger brand cement	15 00
31	C. W. Smith	Paper and paint for lock house, Middletown	15 96
32	F. C. Schwarz	Shades, nails and bolts for collect- or's office, Lockland	1 05
33	Cin. Day. Canal Boat Line..	Hauling timber to Amanda	5 00
34	Crystal Paper Co	Coal for dredge No. 6.....	36 41
35	C. Crane & Co.....	Lumber	27 36
36	Samuel Bachtell	Traveling expenses as asst. engineer.	22 00
37	Western Union Tel. Co....	For services rendered	3 39
38	J. W. Montgomery.....	For lumber furnished	202 15
	Pay roll, officers.....	Salaries	522 17
	Pay roll No. 1.....	Labor	375 50
	Pay roll No. 2.....	Labor	338 75
	Pay roll No. 3.....	Labor	75 00
	Pay roll No. 4.....	Labor	144 50
	Pay roll No. 5.....	Labor	62 25
	Pay roll No. 6.....	Labor	44 50
	Total for month.....		\$2,292 80
	AUGUST, 1901.		
1	W. A. Gregg	Expense account	6 80
2	J. W. Sullivan.....	Expense account	3 95
3	T. H. Corson.....	Expense account	1 18
4	R. V. Denny.....	Expense account	5 85
5	Charles Cooper	Expense account	65 10
6	J. W. Sullivan.....	Rent of lock house	8 34
7	French Whitehead	Rent of lock house	8 00
8	J. W. Gorman	Rent of lock house	6 00
9	Wash Irwin	Feeding state's team and other ex- penses	29 43
10	Henry Eyler	Feeding state's team and other ex- penses	23 60
11	City & Sub. Tel. Assn.....	Services	15 00
12	J. W. Montgomery.....	Lumber	121 51
13	Denny & Simpson	Paints for state boat No. 2	11 84
14	C. C. Foutz.....	Hardware	2 32
15	John Arpp	Hardware	56
16	J. N. Abbott	Livery	2 50
17	Albert Cooper	Livery	7 00
18	L. E. Dotzaner.....	Repairing harness and new saddle...	9 25
19	E. Bowen	Manila rope	14 40
20	Thos. McDermott	Boarding drivers on dredge No. 4...	65
21	Conley Gebhardt	Papering lock house at Sun Fish...	4 45

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
22	A. Ritter	Blacksmithing	19 26
23	W. A. Gregg	One water gauge plate	1 50
24	Newbauer & Roos	Hardware	1 30
25	Frank Koehler	Hardware	17 40
26	Western Union Tel. Co.	For telegraph services rendered....	1 88
27	Chas. E. Perkins	Expenses for July and August	30 00
	Pay roll, officers	Salaries	522 17
	Pay roll No. 1	Labor	346 00
	Pay roll No. 2	Labor	255 50
	Pay roll No. 3	Labor	75 00
	Pay roll No. 4	Labor	37 25
	Pay roll No. 5	Labor	49 50
	Total for month		\$1,704 49
	SEPTEMBER, 1901.		
1	W. A. Gregg	Expense Account	6 35
2	J. W. Sullivan	Expense account	3 60
3	T. H. Corson	Expense account	1 30
4	R. V. Denny	Expense account	4 00
5	Charles Cooper	Expense account	58 95
6	J. W. Sullivan	Lock house rent at Lockland	8 34
7	French Whitehead	Lock house rent at Lockland	8 00
8	J. W. Gorman	Lock house rent at Crescentville	6 00
9	Wash. Irwin	Feeding state's team, and R. R. fare to Hamilton	22 40
10	Henry F. Eyer	Feeding state's team and feed for dredge team	23 95
11	Benj. Smith	Livery	11 00
12	Gunther Bros. & Co.	Livery	2 50
13	Henry Ihlendorf	Towing dredge No. 4 and livery....	28 00
14	Benj. Smith	Towing dredge No. 4 and hauling stone at state dam	95 50
15	Denny & Simpson	Lumber	4 30
16	J. W. Montgomery	Lumber	472 58
17	Emil H. Guth	Blacksmithing	6 35
18	A. Ritter	Blacksmithing	17 65
19	Joseph T. Koelin	Blacksmithing	3 90
20	C. C. Foutz	Hardware	12 22
21	Frank Koehler	Hardware	50
22	M. Joker	Deck brooms	1 50
23	John Grossius & Sons	Fire pot for office	1 25
24	Wilson & McCalley	Sugar sacks for state dam	5 20
25	The City & Sub. Tel. Assn..	Services	19 25
26	George R. Black	Water gauge at Main street	4 50
27	J. G. Dotzner	Repairing harrow	75
28	W. H. Brown & Son	Ton of coal for dredge No. 4	2 75
29	C. E. Perkins	Traveling expenses as chief engr..	19 25
	Pay roll, officers	Salaries	522 11
	Pay roll No. 1	Labor	357 33
	Pay roll No. 2	Labor	346 06

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	Pay roll No. 3.....	Labor	75 00
	Pay roll No. 4.....	Labor	23 20
	Total for month.....		\$2,175 60
	OCTOBER, 1901.		
1	W. A. Gregg.....	Expense account	6 10
2	J. W. Sullivan	Expense account	2 55
3	T. H. Corson.....	Expense account	1 06
4	R. V. Denny.....	Expense account	16 60
5	Charles Cooper	Expense account	63 95
6	French Whitehead	House rent at Lockland	8 00
7	J. W. Sullivan.....	House rent at Lockland	8 34
8	J. W. Gorman.....	House rent at Crescentville	6 00
9	Wash. Irwin	Feeding and care of state's team and other expenses	23 35
10	Henry F. Eyer.....	Feeding and care of state's team and other expenses	30 45
11	Hennegan & Co.....	Collector's blanks	1 75
12	H. Burman	One ton of coal for dredge No. 6....	2 75
13	William Herold	Blacksmithing	4 20
14	James K. Aylward	Blacksmithing	1 95
15	A. Ritter	Blacksmithing	3 40
16	Emil H. Guth.....	Blacksmithing	24 80
17	Lockland Lumber Co.....	Lumber	91 35
18	Denny & Simpson	Lumber	30 48
19	J. W. Montgomery	Lumber	320 95
20	J. F. Bender Bros. Co.....	Lumber	20 00
21	Frank Koehler	Hardware	67 15
22	C. C. Foutz	Hardware	7 55
23	T. C. McDonald	Hardware	1 20
24	John S. Spoerl.....	Hardware	3 35
25	Fred Loesch	Hardware	50
26	E. Bowen	Manilla rope and blocks	11 88
27	E. Bowen	Manila ropes and blocks	27 18
28	Evans & Spellmire	Pumping out lock at Crescentville ..	10 00
29	J. A. Youngling's Sons.....	Pumping out lock at Hamilton	14 00
30	J. N. Abbott.....	Horse and buggy, and labor.....	18 00
31	Thomas Millikin	Hire of spring wagon	7 00
32	Benj. Smith	Hauling stone at state dam	63 00
33	Arnold Thompson	Hauling sand at Crescentville.....	3 80
34	Wm. Bergemier	Sand	2 25
35	City & Sub. Tel. Assn.....	State's house at Cumminsville	31 05
36	J. W. Gorman.....	Teaming, one team	29 75
37	August Benninger	Cement and coal	17 10
38	Max Kurzynski	Repairing harrow and supplies	1 50
39	John A. Dardis	Inspector and police on new work in Cincinnati	37 50
40	Chas. E. Perkins.....	Expenses as chief engineer	23 00
41	Samuel Bachtell	Traveling expenses as asst. engineer..	9 00
	Pay roll, officers.....	Salaries	522 17
	Pay roll No. 1.....	Labor	347 55
	Pay roll No. 2.....	Labor	278 86

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	Pay roll No. 3.....	Labor	75 00
	Pay roll No. 4.....	Labor	30 65
	Pay roll No. 5.....	Labor	320 00
	Pay roll No. 6.....	Labor	209 25
	Total for month.....		\$2,836 27
	NOVEMBER, 1901.		
1	W. A. Gregg.....	Expense account	3 80
2	J. W. Sullivan.....	Expense account	2 60
3	R. V. Denny.....	Expense account	13 45
4	Charles Cooper	Expense account	62 10
5	J. W. Sullivan.....	Lock house rent for November ...	8 84
6	French Whitehead.....	Lock house rent for November	8 00
7	J. W. Gorman.....	Lock house rent for November	6 00
8	Wash. Irwin.....	Feeding state boat team No. 1.....	21 10
9	Henry F. Eyer.....	Feeding state boat team No. 2	20 00
10	John Muller.....	Cement	145 60
11	Fred R. Smith.....	Towing dredge No. 4 and feed for teams	8 00
12	Henry Schmidt	Broken stone	68 40
13	Crystal Paper Co.....	Sugar sacks and felt	19 00
14	Emil H. Guth.....	Blacksmithing	8 65
15	J. H. Kohmescher & Co....	Rubber boots	27 00
16	Albert Hebenstreit.....	Lumber	30 00
17	John Dardis.....	As special patrolman	22 00
18	Will T. Cressler	Enamelled signs	54 00
19	C. E. Perkins.....	Traveling expenses as chief engineer.	28 50
20	J. M. & W. Westwater.....	Electric lamps for office.....	1 00
21	Cross & Robinson	For one Webster's dictionary for office	2 00
	Pay roll, officers.....	Salaries	522 17
	Pay roll No. 1.....	Labor	50 00
	Total for month.....		\$1,126 71

MISCELLANEOUS EXPENDITURES.

ABSTRACT OF MONEY PAID

By Chas. Cooper, Superintendent Division No. 3, Subdivision No. 1, Miami and Erie canal, for Material and Labor for the Permanent Improvement of the M. and E. canal between Cincinnati and Dayton.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	MARCH, 1901.		
1	Henkel & Sullivan.....	For performance of work on contract	4,911 84
2	Jas. C. Wonders	For engineering services	212 60
3	P. T. Morley.....	For services as inspector	16 00
4	Mills, Spellmeyer & Co.....	For material furnished	6 00
5	Mills, Spellmeyer & Co.....	For material furnished	8 40
	Total for month.....	.....	\$5,154 84

ABSTRACT OF MONEY PAID

By Charles Cooper, Superintendent Division No. 3, Subdivision No. 1, Miami and Erie canal, for Material and Labor for the Permanent Improvement of the Miami and Erie canal, between Cincinnati and Dayton.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	APRIL, 1901.		
1	P. T. Morley.....	For services as inspector	116 00
2	Jas. C. Wonders.....	For engineering services	121 20
3	Henkel & Sullivan.....	Amount due on contract, building canal walls in Cincinnati	5,034 16
4	Enquirer Co	For services in printing	10 90
5	Commercial Tribune Co.....	For services in printing	10 90
6	Cincinnati Times Star Co...	For services in printing	13 90
7	The Blade Printing Co.....	For services in printing	9 50
	Total for month.....	.....	\$5,816 56

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
MAY, 1901.			
1	P. T. Morley	For services as inspector	96 00
2	J. C. Wonders.....	For engineering services	124 00
3	Henkel & Sullivan.....	For work on contract	4,806 00
	Total for month.....		\$5,026 00
JUNE, 1901.			
1	Henkel & Sullivan.....	For work done on canal contract between Elm and Liberty streets, Cincinnati	6,004 00
2	Jas. C. Wonders	For engineering services	128 75
3	P. T. Morley.....	For services as inspector	96 00
	Total for month.....		\$6,228 75
JULY, 1901.			
1	Henkel & Sullivan.....	For labor and material furnished building canal walls in Cincinnati	8,016 00
2	Mills, Spellmire & Co.....	Furnishing 400 surveyor's stakes	12 00
3	P. T. Morley.....	For services as inspector.....	124 00
4	Jas. C. Wonders.....	For engineering services	83 55
	Total for month.....		\$8,235 55
AUGUST, 1901.			
1	Henkel & Sullivan.....	Amount of estimate No. 2 for improving the Miami and Erie canal from Elm to Liberty street in Cincinnati	\$2,012 00
2	P. T. Morley.....	For services as inspector	96 00
3	Jas. C. Wonders.....	For engineering services	84 00
	Total for month.....		\$2,192 70
AUGUST, 1901.			
1	Henkel & Sullivan.....	Amount of estimate on contract for improving the Miami & Erie canal from Lockport Ave. to Elm street in Cincinnati	\$4,000 00
SEPTEMBER, 1901.			
1	P. T. Morley.....	For services as inspector	96 00
2	Jas. C. Wonders.....	For engineering services and expenses	60 25
3	Henkel & Sullivan.....	Estimate No. 3 on contract No. 2...	1,992 95
	Total for month.....		\$2,149 20

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
OCTOBER, 1901.			
1	P. T. Morley.....	For services as inspector of masonry.	120 00
2	Jas. C. Wonders.....	For engineering services as per bill.	89 00
3	Henkel & Sullivan.....	Estimate No. 4 on stone work between Elm and Liberty streets in Cincinnati	7,704 00
	Total for month.....		<u>\$7,913 00</u>
NOVEMBER, 1901.			
1	John A. Dardis.....	For services as inspector	30 00
2	Jas. C. Wonders.....	For engineering services	42 40
3	P. T. Morley	For services as inspector	96 00
4	Henkel & Sullivan.....	Partial payment on amount due on contract	10,000 00
	Total for month.....		<u>\$10,168 40</u>

MISCELLANEOUS EXPENDITURES.

ABSTRACT OF MONEY PAID

By Charles Cooper, Superintendent Division No. 3, Subdivision No. 1, Miami and Erie Canal, for Material and Labor for the Maintenance and repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
JULY 1901.			
1	Folz & Jonte	Dredging in Cincinnati	1,631 83
2	Jas. C. Wonders	For engineering services and ex- penses	47 30
3	Philip Grein	For services rendered	3 00
4	Geo. Ostholthoff	For services rendered	3 20
	Total for month .....	.....	\$1,685 33
AUGUST, 1901.			
1	Folz & Jonte	Amount of estimate No. 2 for dredg- ing in Cincinnati	1,398 54
2	Jas. C. Wonders	For engineering services	55 65
3	Joseph Harrison	For services as inspector	20 00
4	John Dardis	For services as inspector	15 00
	Total for month .....	.....	\$1,489 19
SEPTEMBER, 1901.			
1	Jas. C. Wonders	For engineering services and ex- penses	27 15
2	John A. Dardis	For services as inspector of dredging	60 00
3	Folz & Jonte	Estimate No. 3, on dredging con- tract in Cincinnati	2,029 12
	Total for month .....	.....	\$2,116 27

ABSTRACT OF MONEY PAID

By Chas. Cooper, Superintendent Division No. 3, Subdivision No. 1, Miami and Erie canal, for Material and Labor for the Permanent Improvement and dredging of the M. and E. canal between Cincinnati and Dayton.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	OCTOBER 1901.		
1	Jas. C. Wonders.....	For engineering services as per bill..	3 00
2	John A. Dardis	For services as inspector of dredging	37 50
3	Folz & Jonte.....	Estimate No. 4 on dredging contract in Cincinnati	1,083 35
	Total for month.....	.....	\$1,123 85

MISCELLANEOUS EXPENDITURES.

ABSTRACT OF MONEY PAID

By Charles Cooper, Superintendent Division No. 3, Subdivision No. 1, Miami and Erie Canal, for Material and Labor for the Permanent Improvement of the M. & E. Canal between Cincinnati and Dayton.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	SEPTEMBER, 1901.		
	Pay roll No. 1.....	Transporting stone from Middletown to Cincinnati.....	42 64
	Pay roll No. 2.....	Transporting stone from Middletown to Cincinnati	53 14
	Total for month.....	.....	\$95 78

ABSTRACT OF MONEY PAID

By Chas. Cooper, Superintendent Division No. 3, Subdivision No. 1, Miami and Erie canal, for Material and Labor on the Masonry of the Carthage and Lockland Aqueducts.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	OCTOBER, 1901.		
	Pay roll No. 1.....	Labor	42 45
	Pay roll No. 2.....	Labor	68 05
	Pay roll No. 3.....	Labor	497 68
	Total for month.....	.....	\$608 18
	NOVEMBER, 1901.		
1	The P. J. Sorg Co.....	Sugar sacks	8 54
2	Wilson & McCalley.....	Sugar sacks	8 34
3	Brosterman & Walsh.....	Sand	22 50
4	Evans & Spellmire.....	Steam engine pumping water..	60 00

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
5	Emil H. Guth.....	Blacksmithing	38 25
6	Louis Helfrich	Blacksmithing	14 15
7	J. A. Youngling & Sons.....	Hire of pump	12 00
8	John Muller	Cement	291 50
9	Albert Hebenstreit	Lumber	36 00
10	J. W. Sullivan	Inspector	7 00
11	Chas. T. McDonough.....	For services rendered	76 50
	Pay roll No. 1.....	Labor	791 00
	Pay roll No. 2.....	Labor	347 00
	Pay roll No. 3.....	Labor	77 00
	Pay roll No. 4.....	Labor	335 75
	Pay roll No. 5.....	Labor	75 00
	Total for month.....	.....	\$2,200 53

ABSTRACT OF MONEY PAID

By John O'Connor, Superintendent Division No. 3, Subdivision No. 2, Miami and Erie canal, for Material and Labor for the Maintenance and repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	NOVEMBER, 1900.		
1	Hugh Brennan	Keeping team and expenses as foreman	24 40
2	Ed. McConnell	Keeping team and expenses as foreman	35 00
3	John O'Connor	Expenses as superintendent	62 70
4	Dick Floyd	Livery at Lakeview	8 50
5	A. C. House	Lumber for cribbing on Lewistown Reservoir banks	506 34
6	C. E. Perkins.....	Traveling expense as chief engineer.	13 00
	Pay roll, officers.....	Salaries	406 66
	Pay rolls Nos 1, 2 and 3....	Labor	373 50
	Total for month.....	.....	\$1,430 10

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
DECEMBER, 1900.			
1	Frank C. Davies.....	Expenses as collector at Piqua.....	3 75
2	Hugh Brennan	Keeping team and other expenses..	23 70
3	Ed. McConnell	Keeping team and other expenses..	40 05
4	C. A. Starr.....	Cement	1 20
5	John O'Connor	Expense as superintendent	59 50
6	J. H. Dudgeon.....	Livery feed at Lakeview	1 50
7	Robbins & Moore	Liver feed at Piqua	7 50
8	T. Marriott	Hardware for repairs at Lewistown reservoir bank	9 66
9	James L. Day.....	Nails for repairs at Lewistown Res- ervoir bank	24 15
10	Clover & Shank.....	Saw filing for repairs at Lewistown reservoir bank	1 40
11	Von Barger Bros	Painting repair boat No. 2.....	3 50
12	Piqua Home Tel. Co.....	For use of foreman at Piqua.....	3 75
13	City Forge & Iron Co.....	Posts and chain for wharf at Day- ton	3 98
14	Scoby & Vanderveer	Livery at Troy	1 00
15	O. F. Fromm.....	Repairing pump for repair boat No. 1	1 50
16	Logan C. Miller	Expenses as collector at Dayton....	3 80
17	D. Leonhard & Son.....	Whin for repair boat No. 1.....	1 00
18	Central Un. Tel. Co.....	For use of superintendent at Dayton.	10 05
19	Samuel Bachtell	Traveling expenses to Troy as asst. engineer	5 00
20	Chas. E. Perkins.....	Traveling expenses as chief engineer.	9 00
	Pay roll, officers.....	Salaries	472 66
	Pay rolls Nos. 1, 2 and 3...	Labor	395 00
	Total for month.....		\$1,082 65
JANUARY, 1901.			
1	Logan C. Miller.....	Expenses as collector at Dayton....	2 10
2	Frank C. Davies.....	Expenses as collector at Piqua	3 00
3	Hugh Brennan	Keeping team and other expenses...	22 50
4	Ed. McConnell	Keeping team and other expenses...	22 25
5	Makely & Ryder	Horseshoeing for Brennan	3 40
6	Scobey & Vanderveer.....	Livery at Troy	1 00
7	Robbins & Moore	Livery at Piqua	2 50
8	John Bushnell	Blacksmithing	3 40
9	Dick Floyd	Livery at Huntsville	5 75
10	Alexander Gebhart & Co....	Lumber	8 15
11	The F. A. Requart Co.....	Lumber	4 45
12	Michael Moran	Livery at Dayton	11 50
13	John Harlow	Sand for walls at Miami aqueduct..	15 00
14	John O'Connor	Expenses as superintendent	60 30
15	Chas. E. Perkins.....	Expenses as chief engineer.....	7 00
	Pay roll, officers.....	Salaries	406 66
	Pay roll No. 1.....	Labor	265 50
	Total for month.....		\$844 46

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
FEBRUARY, 1901.			
1	Frank C. Davies	Expenses as collector at Piqua	1 85
2	Hugh Brennan	Feeding team and other expenses	24 40
3	M. W. Chambers	Freight and other expenses	11 50
4	Ed. McConnell	Keeping team and other expenses	22 80
5	Riley Foutz	Sprinkling street at collector's office	3 00
6	Dayton Journal	Printing canal notices	2 00
7	W. M. Whitmore	Coal for dredge No. 4	13 00
8	John O'Connor	Expenses as superintendent	58 30
9	C. E. Perkins	Traveling expenses as chief engineer	10 00
	Pay roll, officers	Salaries	406 66
	Pay rolls Nos. 1, 2 and 3	Labor	287 70
	Total for month		\$841 21
MARCH, 1901.			
1	Frank C. Davies	Expenses as collector at Piqua	2 75
2	Ed. McConnell	Keeping team and other expenses	26 45
3	Hugh Brennan	Keeping team and other expenses	24 40
4	Elmer Wombold	Expenses as collector at Dayton	7 70
5	Dayton Globe Iron Works	Castings and other material for dredge No. 4	90 05
6	Tischer & Reisinger	Nails and hardware for Brennan's repair boat	8 65
7	W. M. Whitmore	Coal for dredge No. 4	4 50
8	Chas. Cammerer	Spikes and hardware for dredge No. 4	1 93
9	Alex. Gebhart & Co.	Lumber for crane of dredge No. 4	10 65
10	S. T. & G. A. Gebhart	Steel and other material for dredge No. 4	3 40
11	Central Telephone	Rent and service	10 95
12	John O'Connor	Expenses as superintendent	59 40
13	Thomas McDermott	Material bought for dredge No. 4	6 35
14	Dayton Gas & Fuel Co.	Fuel for collector's office, Dayton	47 75
15	James McClain	Roofing lock house at Drydens	23 00
16	Piqua Home Tel. Co.	Rent of phone for three (3) months	3 75
17	E. D. Thompson	Livery at New Bremen	2 00
18	F. Lipp & Son	Repairing rubber boots	50
19	Dick Floyd	Livery at Huntsville	11 50
20	Alexander Gebhard Co.	Lumber for dredge boat	46 48
21	The F. A. Requart Co.	Lumber for dredge boat	10 50
22	John M. O'Connor	To rent of canal boat	36 00
23	Wykoff, Seamans & Benedict	No expense for typewriting machine	10 00
24	Samuel Bachtell	Traveling expenses as asst. engineer	5 00
25	C. E. Perkins	Traveling expense as chief engineer	10 00
26	W. T. McLean	Traveling expense as secretary	5 00
	Pay roll, officers	Salaries	472 66
	Pay rolls Nos. 1, 2 and 3	Labor	462 25
	Total for month		\$1,403 57

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
APRIL, 1901.			
1	Elmer Wehmbold	Expenses as collector at Dayton....	4 05
2	Frank C. Davies	Expenses as collector at Piqua.....	3 00
3	Hugh Brennan	Keeping team and other expenses...	24 40
4	Ed. McConnell	Keeping team and other expenses...	27 15
5	Chas. A. Gump & Co.	Oakum for dredge No. 4.....	2 50
6	Chas. A. Gump	Rubber boots and oakum for Brennan	9 50
7	James Burt	Expenses as carpenter	2 00
8	W. M. Whitmore	Coal for dredge No. 4.....	15 85
9	D. Leonard & Son.....	Harness supplies for Brennan.....	1 00
10	The Irvin Glass & Paint Co.	Paint and oil for dredge No. 4....	23 85
11	The Irvin Glass & Paint Co.	Paint for Brennan's boat	26 85
12	The F. A. Requart Co.	Lumber to repair dredge No. 4.....	27 35
13	The F. A. Requart Co.	Lumber to repair dredge No. 4.....	6 92
14	Alexander Gebhart Co.	Lumber for Mad river aqueduct....	163 33
15	Houck & Ely	Lumber for Mad river aqueduct	15 53
16	Francis Clemm & Co.	Lumber for change bridge at Troy..	21 14
17	T. D. Eichelberger & Son..	Cement for Mad river aqueduct....	6 80
18	Patterson Tool & Supply Co.	Material for dredge No. 4.....	1 55
19	Tischer & Reisinger	Material for dredge No. 4.....	3 77
20	Tischer & Reisinger	Spikes and other material for Brennan	11 74
21	S. T. & G. A. Gebhart.....	Material for dredge No. 4.....	1 35
22	Turner & Marriott	Wire for reservoir bank	5 84
23	Chas. Hetzler	Nails for McConnell	1 45
24	W. H. Angle	Hardware for McConnell	7 53
25	City Forge & Iron Works...	Work for Mad river aqueduct.....	8 55
26	John Bushnell	Blacksmith work for McConnell....	2 40
27	John Reedy	Blacksmith work for McConnell....	2 55
28	John O'Connor	Expenses as superintendent	59 30
29	I. F. Shaw	Livery at Sidney for Supt.	5 00
30	Robbins & Moore	Livery at Piqua for Supt.	4 00
31	Dick Floyd	Livery at Huntsville for Supt.	6 00
32	Pence & Brackney	Rubber boots for McConnell's crew..	22 75
33	William Binkley	To planting and caring for trees....	23 00
34	J. H. Funk	Fodder used on reservoir bank.....	11 50
35	John O'Connor	Cash paid for fodder at reservoir...	26 90
36	A. L. Shockey	Meals furnished to men at night....	18 00
37	John M. O'Connor	Rent of canal boat	78 00
38	Samuel Rachtell	Traveling expenses as asst. engineer.	3 50
39	Wm. T. McLean	For clerical services from April 1st to May 1st, 1901.....	13 88
40	C. E. Perkins	Traveling expenses as chief engineer.	17 00
	Pay roll, officers.....	Salaries	406 66
	Pay roll No. 1.....	Labor	375 49
	Pay roll Nos. 2 and 3.....	Labor	582 75
	Pay roll No. 4.....	Labor	101 50
	Pay roll No. 5.....	Labor	124 50
	Total for month.....		\$2,307 68

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
MAY, 1901.			
1	Elmer Wombold	Expenses as collector at Dayton....	5 75
2	Frank C. Davies	Expenses as collector at Piqua	3 45
3	Hugh Brennan	Keeping team and other expenses....	24 40
4	Ed. McConnell	Keeping team and other expenses....	25 55
5	Michael Moran	Livery at Dayton by Supt.....	3 50
6	Robbins & Moore	Livery at Piqua by Supt.....	3 50
7	W. H. Angle	Hardware for McConnell's boat.....	4 10
8	Tischer & Reisinger.....	Hardware for Brennan's boat.....	14 48
9	The Irvin Paint Co.....	Paint and oil for boat and state's house at Dayton	11 66
10	City Forge & Iron Works...	Machine work for Mad river aqueduct	9 50
11	Makley & Ryder	Horse shoeing for Brennan's team..	3 00
12	Clem L. Kimmel	Plow for Brennan	9 00
13	Houck & Elv	Lumber for Mad river aqueduct....	41 13
14	Thos. McDermott.....	Material for dredge No. 4.....	1 25
15	W. M. Whitmore.....	Coal for dredge No. 4.....	55 76
16	Sweetman Printing Houses.	Printing canal notices	2 50
17	W. R. Howe.....	To treatment of mule	1 00
18	John O'Connor	Expenses as superintendent	58 80
19	Michael Ressler	To labor digging ditch	5 00
20	John M. O'Connor	To rent of canal boat	81 00
21	John O'Connor	Material for reservoir bank	6 75
22	Eli Norveil	Fodder used on reservoir bank	11 00
23	John Gretzinger	Labor, bolts and iron for lock gates.	124 90
24	Jacob Gablers' Sons.....	Stone for Snyder's lock	86 00
25	Wm. T. McLean	For clerical services from May 1st to June 1st, 1901.....	18 49
26	Chas. E. Perkins	Traveling expenses as chief engineer.	10 00
	Pay roll, officers.....	Salaries	406 66
	Pay roll No. 1.....	Labor	452 75
	Pay rolls Nos. 2 and 3.....	Labor	602 37
	Total for month.....		\$2 083 25
JUNE, 1901.			
1	Elmer Wombold	Expenses as collector at Dayton	4 15
2	Frank C. Davies	Expenses as collector at Piqua.....	2 90
3	Ed. McConnell	Keeping team and other expenses....	21 35
4	Hugh Brennan	Keeping team and other expenses....	24 20
5	Fred Long	Boat load of sand	3 00
6	Central Union Tel. Co.....	For superintendent's office at Dayton.	8 25
7	Piqua Home Tel. Co.....	For telephone in foreman's house ..	3 75
8	John O'Connor	Expenses as superintendent.....	61 45
9	Alexander Gebhart Co.....	Lumber for aqueduct near Troy....	15 07
10	Francis Clem & Co.....	Lumber for aqueduct near Troy.....	45 20
11	C. Wagler	Lumber for lock gates.....	155 81
12	C. Wagler	Lumber for waste weir at Loramie's.	27 23
13	James Burt	Making 2 pairs lock gates	120 00
14	John Bushnell	Horse shoeing for McConnell.....	2 00
15	Dick Floyd	Livery at Huntsville for Supt.....	13 00
16	McFarland & Cullington ...	Livery for Supt.....	3 75

BOARD OF PUBLIC WORKS.

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ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
17	Sam Raper	Livery at Dayton for Supt.	26 00
18	Scoby & Vandever	Livery at Troy for Supt.	3 25
19	A. O. T. Andrews	Horse feed and livery for Supt.	9 50
20	Dayton Globe & Iron Co.	Material for dredge No. 4.	1 25
21	W. M. Whitmore	Coal for dredge No. 4.	34 97
22	John M. O'Connor	Use of canal boat for dredge No. 4.	75 00
23	Samuel Bachtell.	Traveling expenses as asst. engineer.	5 00
24	C. E. Perkins	Traveling expenses as chief engineer.	6 00
	Pay roll, officers.	Salaries	472 66
	Pay roll No. 1.	Labor	294 50
	Pay rolls Nos. 2 and 3.	Labor	599 97
	Total for month.		\$2,039 21
	JULY, 1901.		
1	Elmer Wombold	Expenses as collector at Dayton	4 85
2	Frank C. Davies	Expenses as collector at Piqua	2 05
3	Hugh Brennan	Keeping team and other expenses.	24 20
4	Ed. McConnell	Keeping team and other expenses.	32 10
5	Robbins & Moore	Livery at Piqua	6 50
6	Dick Floyd	Livery at Huntsville	12 00
7	Makley & Ryder	Horse shoeing for Brennan.	3 00
8	James Burt	Making lock gates	135 00
9	Frank Grundish	Lumber used on Dryden's lock.	3 92
10	C. L. Wood	Lumber for Piqua dam.	11 10
11	C. Wagler	Lumber for lock gates	82 61
12	Houck & Ely	Lumber for Mad river dam	95 24
13	Thos. McDermott	Expenses for dredge No. 4.	7 45
14	Thos McDermott.	Expenses for dredge No. 4.	2 60
15	Graves & Marshall	Repairs on boiler dredge No. 4.	10 70
16	W. M. Whitmore	Coal for dredge No. 4.	17 77
17	John O'Connor	Expenses as superintendent	58 60
18	William Everly	Repairing state boat on dock.	10 00
19	Chas. A. Gump	Material for dredge No. 4.	95
20	John M. O'Connor	Rent for canal boat	81 00
21	W. H. Angle	Hardware for McConnells boat	2 19
22	Brandriff & Hedges	Paints and oils for McConnells boat.	8 26
23	Tischer & Reisinger	Hardware for Brennan's boat.	8 29
24	Tischer & Reisinger	Hardware for Brennan's boat.	13 87
25	Irvin Paint & Glass Co.	Oil for dredge No. 4.	8 75
26	City Forge & Iron Works.	Blacksmith and machine work for Mad river aqueduct.	15 80
27	The Irvin Paint & Glass Co.	Paint for state's house and lock gates	8 90
28	Chas. A. Gump	Material for dredge No. 4.	3 73
29	Alex. Gebhart Co.	Lumber for Mad river aqueduct.	14 86
30	T. D. Eichelberger	Cement for Mad river aqueduct.	20 00
31	Western Union Tel. Co.	For services rendered	3 39
	Pay roll, officers.	Salaries	406 66
	Pay roll No. 1.	Labor	396 50
	Pay rolls Nos. 2 and 3.	Labor	603 97
	Total for month.		\$2,116 81

ABSTRACT OF MONEY PAID—Continued,

No. of Voucher.	To Whom.	And For What Paid.	Amount.
AUGUST, 1901.			
1	Elmer Wombold	Expenses as collector at Dayton...	5 75
2	Frank C. Davies	Expenses as collector at Piqua.....	2 70
3	Hugh Brennan	Feeding team and other expenses..	24 40
4	Ed. McConnell	Feeding team and other expenses..	38 70
5	W. R. Howe	Professional services for Brennan's team	1 00
6	T. D. Eichelberger.....	Cement Mad river aqueduct.....	4 50
7	Tischer & Reisinger.....	Hardware for Brennan's boat.....	8 75
8	James Burt	Making lock gates	75 00
9	John Bushnell	Blacksmith work for McConnell.....	3 65
10	A. O. T. Andrews.....	Livery feed	6 25
11	Jas. C. Wonders	Services and expenses for claim commission	32 25
12	John O'Connor	Expenses as superintendent	58 75
13	Western Union Tel. Co.....	For telegraph services rendered.....	1 88
14	C. E. Perkins	Traveling expenses as chief engineer.	27 00
	Pay roll, officers.....	Salaries	406 66
	Pay rolls Nos. 1, 2 and 3...	Labor	535 90
	Total for month.....		\$1,233 14
SEPTEMBER, 1901.			
1	Elmer Wombold	Expenses as collector at Dayton...	7 03
2	Frank C. Davies	Expenses as collector at Piqua.....	3 95
3	Hugh Brennan	Keeping team and other expenses ..	24 20
4	Ed. McConnell	Keeping team and other expenses ..	42 80
5	G. W. Minter	Repairs for lock house at Dayton...	4 80
6	Central Union Tel Co.....	For superintendent	8 75
7	Home Tel. Co.....	At Piqua for foreman, 3 months at \$1.25	3 75
8	W. F. Robbins.....	Livery for superintendent	4 50
9	Chas. A. Hetzler	Nails for gates at Lockington.....	1 29
10	Thos. McDermott	Expenses for dredge No. 4.....	28 00
11	F. R. Smith	Feed for teams towing dredge No. 4	3 00
12	A. B. Shelter	Material for dredge No. 4.....	12 06
13	James L. Day	Spikes for Lewistown reservoir bank.	29 72
14	Turner Mariott.....	Tools and hardware for reservoir bank	5 98
15	A. Shark	Blacksmith work for McConnell.....	5 80
16	A. O. T. Andrews	Livery feed at reservoir	4 50
17	James Bolan	Pipes and pump for house at Three Locks	15 00
18	John M. O'Connor	Rent of canal boat for August, use of dredge No. 4.....	81 00
19	John M. O'Connor.....	Rent of canal boat, use of dredge No. 4	75 00
20	Dick Floyd	Livery at Huntsville for August.	11 00
21	Dick Floyd	Livery at Huntsville for September.	15 50
22	John O'Connor	Expenses as superintendent	56 90
23	C. E. Perkins	Traveling expenses as chief engineer.	10 75
	Pay roll, officers.....	Salaries	472 66
	Pay roll Nos. 1 and 2.....	Labor	630 75
	Pay roll No. 3.....	Labor	177 85
	Total for month.....		\$1,736 54

ABSTRACT OF MONEY PAID

By H. W. Meacham, Superintendent Division No. 3, Subdivision No. 3, Miami and
Erie canal, for Material and Labor for the Maintenance
and repair of the Public Works.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
OCTOBER, 1900.			
1	Brown, Eger & Hull.....	Paper	7 46
2	Hartman Bros	Plastering	5 30
3	St. Marys Machine Co.....	Bolts	5 90
4	W. L. Smith	Gravel, 18 loads.....	7 20
5	Ulrich & Sons	Paint	1 98
6	Fisher & Haller.....	Crushed stone	49 27
7	Chas. Munday	Hauling lumber	5 00
8	P. McGovern	Hauling stone and gravel.....	39 50
9	Wesley McDonald	Expense of telephone.....	1 75
10	H. W. Myers	Expense as collector.....	2 70
11	Jos. A. Claypool	Expense as collector and office rent..	16 89
12	W. H. Doll	Expense as deputy collector and Office rent	11 00
13	S. E. Allmon	Keeping team, etc.....	31 90
14	J. R. Spencer	Keeping team, etc.....	20 20
15	Wm. Casteel	Keeping team, etc.....	21 00
16	Delphos Hdw. Co	Hardware	1 00
17	Dunan & Koeper	Hardware	20 15
18	John A. Smith	Lumber	11 62
19	Jos. Barrington	Lumber	26 84
20	Garmhausen Bros	Lumber	45 43
21	Thomas Shearer	Painting State bridge at Defiance....	117 60
22	Fisher & Haller	Stone revetment wall, Delphos, O..	480 50
23	H. W. Meacham	Expenses as supt. of repairs.....	63 75
24	Samuel Bachtell	Traveling expenses as asst. engineer..	7 00
25	C. E. Perkins	Traveling expenses as chief engineer..	5 00
	Pay roll, officers.....	Salaries	621 48
	Pay roll No. 1.....	Labor	320 75
	Pay roll No. 2.....	Labor	467 30
	Pay roll No. 3.....	Labor	343 09
	Total for month.....		\$2,758 56
NOVEMBER, 1900.			
1	Miami Stone Co.....	Crushed stone and rip-rap	8 13
2	Thomas Dollman	Hauling lumber to Miami	6 00
3	Schroeder & Co.....	Rubber boots	5 00
4	Geo. Patrick	Feeding and pasture for mule.....	9 55
5	Jos. Reynolds	Attending to side cut at Grand Rap- ids, one year.....	10 00
6	Fred Brindle	Use of traction engine	74 00
7	H. W. Myers.....	Expenses as collector.....	8 23
8	W. H. Doll	Expenses as deputy collector and office rent	6 85
9	Wesley McDonald	Expenses of telephone	1 70
10	S. E. Allmon	Keeping team, etc.....	22 70
11	J. R. Spencer.....	Keeping team, etc.....	24 45

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
12	Wm. Casteel	Keeping team, etc.	20 00
13	P. McGovern	Livery and hauling	9 50
14	J. P. Young	Livery	2 00
15	H. W. Meacham	Expenses as superintendent of re- pairs	63 95
	Pay roll, officers	Salaries	621 48
	Pay roll No. 1	Labor	319 00
	Pay roll No. 2	Labor	183 00
	Total for month		\$1,395 54
	DECEMBER, 1900.		
1	L. Ludlow	Fence posts	6 50
2	L. Burkhart	Wood	2 00
3	Ira Leach	Hauling manure	50
4	Henry J. Weible	Pick handles	75
5	Jos. Hurley	Coal	75
6	Wesley McDonald	Expenses of trip to Columbus and telephone	15 00
7	Central Union Tel. Co.	Telephone service	16 40
8	D. H. Hancock	Expenses as collector and office rent.	19 17
9	H. W. Myers	Expenses as collector	5 79
10	W. H. Doll	Office rent for collector's office	5 00
11	S. E. Allmon	Keeping team, etc.	21 98
12	J. R. Spencer	Keeping team, etc.	20 25
13	Wm. Casteel	Keeping team, etc.	20 50
14	Geo. Krobill	Blacksmith work	80
15	Bissonett & Diebel	Hardware	1 57
16	H. W. Meacham	Expenses as superintendent of re- pairs	62 35
17	Chas. E. Perkins	Expenses as chief engineer	15 00
	Pay roll, officers	Salaries	613 48
	Pay roll No. 1	Labor	336 25
	Total for month		\$1,164 01
	JANUARY, 1901.		
1	L. Beckman	Drafting paper, linen, ink, etc.	10 35
2	H. W. Myers	Expenses as collector	3 20
3	W. H. Doll	Expenses as deputy collector and office rent	6 00
4	Jos. H. Claypool	Expenses as collector and office rent.	19 95
5	Wesley McDonald	Expenses of telephone, etc.	4 30
6	S. E. Allmon	Keeping team, etc.	20 84
7	J. R. Spencer	Keeping team, etc.	20 73
8	Wm. Casteel	Keeping team	20 00
9	Wm. Jones	Livery and hauling; bill for two years 1899, 1900.	71 50
10	H. W. Meacham	Expenses as Supt. of repairs	63 90
11	Wm. T. McLean	Traveling expenses to St. Marys and return	10 50

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	Pay roll, officers.....	Salaries	613 48
	Pay roll No. 1.....	Labor	245 00
	Total for month.....		\$1,109 75
	FEBRUARY, 1901.		
1	W. O. Holst & Co.....	Sand and cement	8 90
2	Schroeder & Co.....	2 pairs rubber boots	10 00
3	T. B. Edwards	Brooms buckets, etc.....	6 05
4	E. E. Phillips.....	Building state barn.....	28 80
5	W. H. Doll	Office rent for collector's office.....	5 00
6	H. W. Myers	Expenses as collector	5 40
7	Wesley McDonald	Expenses to Columbus and telephone.	14 05
8	S. E. Allman	Expenses keeping team, etc.....	28 75
9	J. R. Spencer	Expenses keeping team, etc.....	20 75
10	William Casteel	Expenses keeping team, etc.....	20 00
11	Dick Barrington	Livery for six months	57 00
12	W. A. Kuhlman & Co.....	Hardware	79 54
13	Hollingworth & Bamberger.	Lumber	193 56
14	Housley & Bemis	Lumber	63 50
15	J. B. Tennyson	Lumber	27 98
16	Jno. C. Shaffer	Lumber	275 67
17	H. W. Meacham	Expense as Supt. of Repairs.....	64 90
18	C. E. Perkins	Traveling expenses as chief engineer.	10 00
	Pay roll, officers.....	Salaries	613 48
	Pay roll No. 1.....	Labor	237 10
	Total for month.....		\$1,770 43
	MARCH, 1901.		
1	Miami Stone Co.....	Stone, repairing canal bank.....	3 84
2	W. H. Doll	Oil and horse powder	80
3	King Bros	Chloride of lime	60
4	Geo. H. Dicus	Cistern	14 62
5	I. F. Raudebaugh	Surveying	5 25
6	The M. I. Wilcox Co.....	Canvas and oakum	18 70
7	Central Union Tel. Co.....	Messages and phone rent	17 20
8	The Defiance Mach. Works.	Castings and rods	127 10
9	P. McGovern	Hauling lumber and dirt	12 00
10	Samuel Charter	Hauling lumber and dirt	9 00
11	H. W. Myers	Expense as collector	5 45
12	Guy Huffman	Expense as collector	5 50
13	W. H. Doll	Expense as deputy collector and office rent	7 00
14	D. H. Hancock	Expense as deputy collector and office rent	14 50
15	Jos. A. Claypool	Expense as deputy collector and office rent	17 02
16	Wesley McDonald	Expenses to Lima and Celina and phone rent	5 60
17	Azor Thurston	Advertising bids for material	7 15
18	C. J. Thompson	Advertising bids for material	8 45

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
19	C. J. Holgate	Advertising bids for material	8 50
20	The Toledo Blade Co.	Advertising bids for material	9 00
21	S. E. Allman	Keeping team, etc.	23 75
22	J. R. Spencer	Keeping team, etc.	20 45
23	Frank Bennett	Keeping team, etc.	20 00
24	Geo. R. Teeple	Livery	21 00
25	Albert Smith	Blacksmithing	4 15
26	J. Scharger & Sons.	Blacksmithing	77 20
27	Dunan & Koeper	Hardware	50
28	Dunan & Koeper	Hardware	7 50
29	Myers Hardware Co.	Hardware	40
30	Ulrich & Sons	Hardware	7 14
31	W. A. Kuhlman & Co.	Hardware	29 84
32	W. A. Kehnast	Hardware	55 27
33	Dan W. Coy	Lumber	3 00
34	Schulien & Roth	Lumber	3 15
35	W. A. Reynolds	Lumber	9 94
36	E. E. Hooker	Lumber	18 25
37	Herman Ricker & Sons.	Lumber	34 86
38	H. W. Meacham	Expense as Supt. of Repairs	63 75
39	Wykoff, Seamans & Bene- dict	Expense for type writing machine.	10 00
40	C. E. Perkins	Traveling expense as chief engineer.	12 00
41	Samuel Bachtell	Traveling expense as asst. engineer.	5 00
	Pay roll, officers.	Salaries	613 43
	Pay roll No. 1.	Labor	276 99
	Pay roll No. 2.	Labor	125 30
	Total for month.		\$1,740 30
	APRIL, 1901.		
1	The M. I. Wilcox Co.	Rope and paint	19 54
2	B. H. Broer	Repairing clock	75
3	C. F. Limbacher	Repairing harness	1 00
4	H. G. McLean	Kitchen sink	11 00
5	H. M. & R. Co.	Rubber boots	5 00
6	The Toledo Workhouse	Labor on canal	8 25
7	W. H. Doll	Oil and paint	22 80
8	P. McGovern	Hauling stone	51 00
9	The Kind & Kuhlman Co.	Cement	52 75
10	The St. L. & W. R. R. Co.	Freight on cement	7 00
11	The St. Mary's Mach. Co.	Repairing hammers and rods.	5 30
12	The Defiance Machine Wks.	Castings	49 56
13	Wesley McDonald	Expense of telephone and burying fish	5 45
14	Chas. Wittich	Expense as collector.	12 50
15	H. W. Myers	Expense as collector	4 75
16	W. H. Doll	Expense as deputy collector and of- fice rent	6 00
17	S. E. Allman	Keeping team, etc.	28 54
18	J. R. Spencer	Keeping team, etc.	21 45
19	F. Bennett	Keeping team, etc.	20 00
20	Dick Barrington	Livery	32 00
21	Albert Smith	Blacksmithing	11 25

ABSTRACT OF MONEY PAID—Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
22	Jos. Hitz	Blacksmithing	64 75
23	Duman & Koeper	Hardware	53 90
24	W. A. Kuhlman & Co.	Hardware	50 99
25	The Lamson & Skinner Co..	Lumber	20 47
26	Hollingsworth & Bamberger.	Lumber	36 36
27	The Maclaren & Sprague Co.	Lumber	65 99
28	Jos. Barrington	Lumber	90 04
29	Jno. A. Aspacher	Lumber	272 62
30	H. W. Meacham	Expense as Supt. of Repairs.	64 25
31	Wm. T. McLean	For clerical services and traveling expenses from April 1st to May 1st, 1901	20 64
32	C. E. Perkins	Traveling expenses as chief engineer.	12 00
	Pay roll, officers.	Salaries	627 48
	Pay roll No. 1.	Labor	456 75
	Pay roll No. 2.	Labor	163 20
	Pay roll No. 3.	Labor	454 25
	Total for month.		\$2,829 58
	MAY, 1901.		
1	The M. I. Wilcox Co.	Pike poles and paint	7 75
2	The Franklin Printing Co..	Printing weekly labor reports	2 35
3	W. O. Holst.	Cement	12 00
4	Wm. Copeland	Hauling lumber	5 50
5	The Miami Stone Co.	Crushed stone	19 70
6	Stephen Leflar	Building lock gates	256 00
7	Wesley McDonald	Expenses to Celina and telephone.	4 05
8	W. H. Doll	Expenses as deputy collector and office rent	10 75
9	H. W. Myers	Expenses as deputy collector	3 39
10	S. E. Allman	Keeping team, etc	25 50
11	J. R. Spencer	Keeping team, etc	20 25
12	Frank Bennett	Keeping team, etc	20 00
13	P. A. Ellis	Livery	16 00
14	E. Young	Livery and hauling	23 50
15	John Watters	Blacksmithing	1 00
16	G. Gschwend	Blacksmithing	3 60
17	Jos. Hitz	Blacksmithing	18 80
18	Myers Hardware Co.	Hardware	3 75
19	Wolford & Mack	Hardware	5 80
20	G. H. Blaker	Hardware	6 78
21	Dunan & Koeper	Hardware	36 65
22	D. J. Farnsworth	Hardware and cement	62 68
23	W. A. Kuhlman & Co.	Hardware	86 48
24	The Lamson & Skinner Co..	Lumber	3 45
25	The Maclaren & Sprague Co.	Lumber	5 68
26	Wm. T. Hubbard	Lumber	13 50
27	Hollingsworth & Bamberger.	Lumber	18 30
28	Wm. Mackenbach	Lumber	19 57
29	The Howerman Lumber Co.	Lumber	21 87
30	W. A. Reynolds	Lumber	46 28
31	Jos. Barrington	Lumber	62 35

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
32	John A. Smith.....	Lumber	63 48
33	Wm. Peter	Lumber	430 64
24	H. W. Meacham	Expense as Supt. of Repairs.....	63 95
35	Wm. T. McLean	Expense for clerical services	21 29
36	Chas. E. Perkins.....	Expense as chief engineer	7 50
	Pay roll, officers.....	Salaries	627 48
	Pay roll No. 1.....	Labor	609 25
	Pay roll No. 2.....	Labor	360 12
	Total for month.....		\$3,026 99
	JUNE 1901.		
1	S. G. Roloson	Tarpaulin	6 00
2	A. M. Minsel	Wall paper	5 60
3	Toledo Builders' Supply Co.	Cement	10 00
4	C. W. Houck	Plastering	22 40
5	W. C. Jones	Mowing machine	45 00
6	R. R. Bortel	Axe handles, etc.....	2 00
7	J. R. Byrum	Repairing wicket rods, etc.....	4 50
8	S. Charter	Expense looking after pipe permits.....	12 00
9	Wesley McDonald	Expenses to Celina and telephone....	4 10
10	H. W. Myers	Expenses as collector	2 58
11	D. H. Hancock	Expenses as collector and office rent ..	17 59
12	J. H. Bogart	Harness repairs	3 95
13	C. F. Limbacher	Harness repairs	8 00
14	S. E. Allman	Keeping team, etc	21 75
15	J. R. Spencer	Keeping team, etc	24 65
16	Frank Bennett	Keening team, etc	20 00
17	Kundert Bros	Livery	3 75
18	P. Redman	Livery	5 00
19	John Scharger	Blacksmithing	28 90
20	Albert Smith	Blacksmithing	1 90
21	Dunan & Koeper	Hardware	9 08
22	Delphos Hardware Co	Hardware	47 53
23	W. A. Kuhlman & Co.....	Hardware	70 37
24	Wm. Kehnast	Hardware	42 09
25	J. T. Horine & Son.....	Lumber	21 75
26	Wm. Mackenbach	Lumber	16 22
27	Jos. Barrington	Lumber	95 08
28	F. A. Chapin	Lumber	144 50
29	Herman Ricker & Sons.....	Lumber	100 85
30	H. W. Meacham	Expenses as Supt. of Repairs.....	62 90
31	Samuel Bachtell	Traveling expenses as asst. engineer.....	13 00
32	C. E. Perkins	Traveling expenses as chief engineer.....	10 00
	Pay roll, officers.....	Salaries	627 48
	Pay roll No. 1.....	Labor	350 00
	Pay roll No. 2.....	Labor	615 50
	Total for month.....		\$2,476 02

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
JULY, 1901.			
1	The M. I. Wilcox Co.....	Oakum and paint	8 47
2	Gordon, Hauss & Folk....	Mowing machine	12 00
3	C. W. Houck	Plastering	13 50
4	A. M. Minzel	Wall paper	2 75
5	C. C. Kuhn	Iron pipe	3 24
6	J. A. Heilmann	Tallow	70
7	L. Beckman	Tracing cloth	2 00
8	Ralph Hancock	Cutting weeds	7 50
9	James Kohn	Repairing culvert above lock No. 22.	19 63
10	Joseph Reynolds	Telephone messages and rent	14 25
11	Wesley McDonald	Telephone messages and rent	1 60
12	Central Union Tel. Co.....	Telephone messages and rent	13 80
13	H. W. Myers	Expenses as collector	3 40
14	W. H. Doll	Expenses as deputy collector and of- fice rent	11 35
15	Jas. A. Claypool	Expenses as deputy collector and of- fice rent	21 41
16	S. E. Allman	Keeping team, etc	21 05
17	J. R. Spencer	Keeping team, etc	22 55
18	Frank Bennett	Keeping team, etc	20 00
19	Dick Barrington	Livery	34 50
20	Enos Young	Livery	15 50
21	Albert Smith	Blacksmithing	4 00
22	Myers Hardware Co.....	Hardware	5 30
23	J. W. Wright	Hardware	1 95
24	Dunan & Koeper	Hardware	31 40
25	W. A. Kehnast	Hardware	17 68
26	W. H. Dotterer	Lumber	8 00
27	J. B. Tennyson	Lumber	76 20
28	Jas. Barrington	Lumber	62 95
29	Hollingsworth & Bamberger.	Lumber	25 11
30	H. W. Meacham	Supt. of Repairs expenses	62 40
31	Samuel Bachtell	Traveling expenses as asst. engineer.	7 00
32	Western Union Tel. Co.....	For services rendered	3 39
	Pay roll, officers.....	Salaries	627 48
	Pay roll No. 1.....	Labor	627 62
	Pay roll No. 2.....	Labor	415 25
	Total for month.....		\$2,224 93
AUGUST, 1901.			
1	The M. I. Wilcox Co.....	Pike poles	7 20
2	R. R. Bortel	Pike poles	1 25
3	Dr. W. C. Holden	Doctoring state's team	6 25
4	W. H. Doll	Paint	3 00
5	Central Union Tel. Co.....	Telephone rent and messages	6 80
6	John Allen	Plastering state's house	15 00
7	I. H. Malick	Services as civil engineer	7 40
8	Wesley McDonald	Expenses of cutting weeds	21 50
9	E. Robinson	Cutting weeds	1 50
10	H. W. Myers	Expense as collector	2 40
11	S. E. Allmon	Keeping team, etc	24 20

ABSTRACT OF MONEY PAID — Continued.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
12	J. R. Spencer	Keeping team, etc	26 60
13	F. Bennett	Keeping team, etc	22 00
14	P. McGovern	Livery	5 00
15	O. R. Walker	Livery	7 50
16	Enos Young	Livery	9 50
17	W. P. DeHart	Blacksmithing	2 70
18	Wallace Dickman	Blacksmithing	16 46
19	Chas. J. Boesel	Hardware	1 25
20	Delphos Hardware Co.	Hardware	5 00
21	Dunan & Koeper	Hardware	16 87
22	W. A. Kuhlman & Co.	Hardware	29 01
23	Maclaren & Sprague	Lumber	9 67
24	Hollingsworth & Bamberger.	Lumber	11 21
25	Jos. Barrington	Lumber	22 12
26	Bassett Bros	Lumber	47 49
27	W. A. Reynolds	Lumber	145 83
28	Jno. C. Schaffer	Lumber	795 26
29	H. W. Meacham	Expense as Supt. of Repairs	63 75
30	Chas. E. Perkins	Expense as chief engineer	4 00
31	Western Union Tel. Co.	For telegraph service rendered	1 88
	Pay roll No. 1	Labor	265 75
	Pay roll No. 2	Labor	365 80
	Pay roll, officers	Salaries	627 48
	Total for month .....	.....	\$2,598 63

MISCELLANEOUS EXPENDITURES.

ABSTRACT OF MONEY PAID

By H. W. Meacham, Superintendent Division No. 2, Subdivision No. 3, Miami and Erie canal, for Material and Labor for rebuilding and repairing Providence and Independence dams.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
JUNE, 1901.			
1	W. A. Kuhlman & Co.....	Drift bolts as per contract.....	580 41
2	H. W. Meacham	Expenses of stenographer, printing bills and specifications.....	9 75
	Total for month.....		\$590 16
JULY, 1901.			
1	M. J. Hosler & Co.....	Lumber furnished and delivered at Providence dam	2,411 06
2	E. D. Hall	Lumber furnished and delivered at Independence dam.....	1,140 00
3	The Miami Stone Co.....	Stone crushed and delivered at Providence dam	536 06
	Total for month.....		\$4,087 12
AUGUST, 1901.			
1	Wallace Dickman	Bolts, etc., used in repairing Independence dam	45 19
2	E. D. Hall	Lumber estimate No. 2.....	570 00
3	W. A. Kuhlman.....	Rods and washers used on Providence dam	58 63
4	Wm. Peters	Lumber used on Providence dam...	90 24
5	M. J. Hosler & Co.....	Lumber percentage reserved on bill No. 1. Abstract July 1901.....	602 76
	Pay roll No. 1.....	Labor on Independence dam	678 87
	Pay roll No. 2.....	Labor on Providence dam.....	364 25
	Total for month.....		\$2,409 94
SEPTEMBER, 1901.			
	Pay roll No. 1.....	Labor	665 25
	Pay roll No. 2.....	Labor	552 99
	Total for month.....		\$1,218 24

ABSTRACT OF MONEY PAID — Concluded.

No. of Voucher.	To Whom.	And For What Paid.	Amount.
	OCTOBER, 1901.		
1	The Miami Stone Co.....	Crushed stone as per contract.....	897 09
2	E. D. Hall	Lumber as per contract, Independence dam	1,599 61
3	A. J. Aspacher	Lumber used at Independence dam.	70 00
4	Housley & Bemis	Lumber used at Providence dam....	175 43
	Pay roll No. 1.....	Labor	532 00
	Pay roll No. 2.....	Labor	317 25
	Total for month.....	.....	\$3,591 38

TONAGE STATISTICS.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of Cincinnati, on the Miami and Erie Canal for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Ale and beer.....		11,781
Flour	7,268	1,595
Oil	220	1,343
Lime and cement.....		297
Vinegar		1,420
Salt		151
Whisky	67,943	107
Bushels —		
Corn	12,387	
Oats	1,668	848
Malt	17,251	4,188
Rye		822
Wheat		300
Pounds		
Acids		333,402
Baggage and furniture	96,915	114,655
Cotton and wadding.....	1,230,385	1,391,800
Fire clay		1,200
Hides and skins	319,620	
Ice	20,680,000	367,640
Iron (pig or scrap).....	37,700	
Iron (cast)	554,650	271,092
Iron (bar)	7,900	451,330
Lard	20,500	66,790
Leather	3,500	
Machinery	48,600	21,600
Merchandise	4,558,930	10,660,415
Mill feed.....	43,700	55,320
Potters' ware		14,875
Paper	14,190,369	350,060
Rags and paper stock.....	243,311	15,249,208
Starch	2,434,696	
Sand	51,480,000	
Sugar		212,659
Tallow	344,020	
Sundries	142,560	
Number —		
Barrels (empty)	37,936	96,401
Fire brick		10,650
Hoop poles		14,100
Posts		2,385
Brick		1,300
Shingles		7,000

STATEMENT, ETC. — Concluded.

Articles.	Arrived.	Cleared.
Feet — Lumber	15,600	401,667
Cords — Wood	29	.....

W. A. GREGG, Collector.

STATEMENT

Of tonnage of articles arrived and cleared at the port of Lockland, on the Miami and Erie Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Ale and beer	13,592½	2
Vinegar	263	16
Flour	1,777	7,609
Oil	663	14
Lime and cement	447	346
Salt	115	
Whisky	42	
Rosin and Tar	264	790
Bushels —		
Potatoes		10
Clay (fire)		
Corn	2,100	3,528
Oats	728	50
Malt	35	11,055
Wheat	293 1-3	
Beans		22
Pounds —		
Sewer pipe	24,200	10,000
Fireworks	2,500	835,351
Puggage and furniture	43,435	20,800
Wadding	7,500	1,170,085
Cotton	1,641,200	13,000
Fire clay		3,700
Bottle wrappers		113,910
Hides and skins		75,400
Ice	434,330	20,480,000
Iron (pig or scrap)		18,200
Stoves		38,959
Junk	30,000	
Iron (cast)	293,144	522,050
Iron (bar)	353,095	38,900
Lard	39,540	20,500
Tin cans		711,865
Machinery	23,700	61,000
Merchandise	6,173,599	789,046
Straw and hay	12,950	2,000
Paper	3,744,271	11,227,062
Meal and feed	42,250	37,500
Rags and paper stock	14,781,616	2,012,253
Starch	151,900	2,760,825
Sugar	156,336	
Fallow		83,600
Lead	35,795	
Meat		57,500
Potters' ware	4,575	
Sand	240,000	240,000
Number —		
Barrels (empty)	59,538	43,492
Brooms		11,970
Fire brick	6,500	1,500
Hoop poles	74,050	
Railroad ties	13,687	13,687

STATEMENT, ETC. — Concluded.

Articles.	Arrived.	Cleared.
Number — Concluded —		
Posts	1,836	12
Buggies		1
Shingles	14,000	
Electric R. R. poles	687	687
Mill stone	1	
Stone	22,600	
Feet —		
Lumber	432,293	75,534
Cords —		
Wood		29

J. W. SULLIVAN, Collector.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of Middletown, on the Miami and Erie Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Flour	667	233
Malt		402,535
Vinegar	109	
Oil (linseed)	359	
Pounds —		
Cement		116,000
Merchandise	1,755,603	523,630
Paper		9,382,279
Tar		301
Rags	4,277,405	
Iron (pig or scrap)		30,000
Soda ash		17,000
Number —		
Barrels (empty)		3,520
Boxes (empty)		2,924
Fire brick		2,000
Empty carboys		246
Ties		33,045
Posts	350	
Feet —		
Lumber	18,558	16,000

T. H. CORSON, Collector.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of Dayton, on the Miami and Erie Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Rosin	25	10
Salt	21	
Ale and beer		154
Vinegar	751	21
Flour	42	1,512
Oil (lubricating)	249	205
Tar	16	
Turpentine	18	
Paint	10	
Bushels —		
Corn		8,414
Oats		1,668
Pounds —		
Malt	82,000	
Pork (bulk)	1,400	27,460
Stars and stripes		300
Groceries	15,125	
H. H. goods and furniture	14,700	71,860
Soda (sal)	3,000	
Copper	9,500	
Sealing wax	4,300	82,125
Hides		120,770
Hog skins		35,400
Brushes		24,540
Baggage and furniture	29,200	9,700
Pounds —		
Iron (scrap)	3,500	11,650
Iron (cast)	91,100	33,632
Lead	2,100	500
Fireworks	42,000	2,260
Lard		19,150
Merchandise	361,300	120,850
Putty		72,985
Drugs		49,495
Acid	81,814	
Rags		372,051
Starch	167,600	
Sugar	31,436	415
Leather (scrap)	8,300	
Tallow		189,600
Machinery		5,000
Iron (bar)		200
Grease		200
Fertilizer		12,000
Number —		
Horses	41,000	
Barrels (empty)	298	1,289
Automobiles		1
Cart		1

STATEMENT, ETC. — Concluded.

Articles.	Arrived.	Cleared.
Number — Concluded —		
Pianos		5
Sewing machines		2
Heading		12,469
Feet —		
Lumber	22,000	7,450

ELMER WOMBOLD, Collector.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of Piqua, on the Miami and Erie Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Pounds — Merchandise	1,500	.....
Number — Brick		205,000
Posts		600
Feet — Lumber		85,000
Timber		32,670
Perches — Stone		3,366
Cords — Wood		250

FRANK C. DAVIES, Collector.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of St. Mary's, on the Miami and Erie Canal, for the year ending Novemebr 15, 1901.

Articles.	Arrived.	Cleared.
Tons —		
Straw	148	.....
Perches —		
Stone	640	.....
Cords —		
Wood	15	.....
Bolts	58	.....
Number —		
Tile	3,000	.....
Pounds —		
Machinery	18,000	6,000
Animals		
Baggage and furniture		1,500
Feet —		
Lumber	61,165	.....
Timber	4,000	.....

W. H. DOLL, Deputy Collector.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of Delphos, on the Miami and Erie Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Bushels —		
Corn	120	.....
Number —		
Tile	19,500	.....
Heading (bundles) and staves	1,620	.....
Feet —		
Lumber	4,000	.....
Logs (rafted)	38,500	.....
Cords —		
Bolts	2,919	.....
Buts	166	.....
Wood	237	.....
Tons —		
Straw	148	.....
Pounds —		
Merchandise	7,800	.....
Perches —		
Stone	5	.....

JOSEPH A. CLAYPOOL, Collector.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of Defiance, on the Miami and Erie Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Ale and Beer		2,100
Lime and cement	903	
Bushels —		
Potatoes	1,728	400
Corn		1,791
Coke	700	
Wheat		36,200
Pounds —		
Baggage and furniture	73,000	81,093
Crockery	2,100	
Iron (pig or scrap)	811,912	14,000
Sand		417,669
Merchandise	899,734	548,827
Number —		
Barrels (empty)	9,876	12,791
Brick		931,700
Hoop poles	7,210	5,700
Railroad ties	8,987	
Staves and heading		70,000
Feet —		
Lumber	9,848,500	391,396,700
Timber		894,633
Perches —		
Stone	5,000	
Cords —		
Bolts	114,983	
Wood	9,728	7,237

H. W. MYERS, Collector.

STATEMENT

Of tonnage of articles arrived and cleared at the port of Napoleon, on the Miami and Erie Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Flour		56
Bushels —		
Corn		1,900
Coke	8,000	
Wheat		5,300
Pounds —		
Iron (scrap)		34,000
Sand	238,050	432,150
Number —		
Brick	12,000	44,000
Lath		20,000
Feet —		
Lumber		291,286
Timber (cubic feet)	72,515	10,900
Logs (cubic feet)		111,233
Perches —		
Stone		162
Cords —		
Wood	30	312

D. H. HANCOCK, Collector.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of Toledo, on the Miami and Erie Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Ale and beer		54½
Lime and Cement		174
Salt		208
Flour	56	
Bushels —		
Corn	16,880	
Wheat	27,800	
Pounds —		
Merchandise	4,300	51,500
Hay	162,000	
Sewer pipe		50,000
Sand		144,000
Number —		
Brick		31,100
Poles (Travis)		200
Lath and shingles		339,300
Kegs (empty)	73	
Railroad ties	331	150
Ponies	21	
Spluts	3,000	
Feet —		
Lumber	299,500	148,000
Timber (cubic feet)	30,510	2,800
Perches —		
Stone		½
Cords —		
Wood	1,913	

CHARLES WITTICH, Collector.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of Cleveland, on the Ohio Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Salt		50
Pounds —		
Coal (mineral)	27,122,577	
Ashes		268,000
Pier stone	1,890,400	
Roofing slate	10,400	
Dynamite		
Number —		
Brick	1,688,900	25,000
Lath		407,600
Fence posts		23
Shingles		9,500
Feet —		
Lumber		1,842,620
Timber	5,000	
Cords —		
Wood	47	

J. M. JONES, Collector.

STATEMENT

Of the articles arrived and cleared at the port of Akron, on the Ohio Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Lime and cement	418	.....
Bushels —		
Tomatoes	3,255	.....
Pounds —		
Coal (mineral)	32,342,577	2,430,657
Oats	38,000	38,000
Hay and straw	102,000	102,000
Corn	40,000	40,000
Slate	104,000	.....
Ashes	500,000	500,000
Sundries	564,000	162,600
Number —		
Empty crates	2,566	.....
Barrels (empty)	781	.....
Shingles	637,600	270,000
Brick	25,000	.....
Ties	1,600	1,600
Piles	2,000	2,000
Lath	109,500	19,800
Feet —		
Lumber	1,451,273	563,307
Perches —		
Stone (pounds)	11,088	314,800
Cords —		
Wood		111

J. H. MORRISON, Collector.

STATEMENT

Of the tonnage of articles arrived and cleared at the port of Massillon, on the Ohio Canal, for the year ending November 15, 1901.

Articles.	Arrived.	Cleared.
Barrels —		
Ale and beer	6,100	6,100
Lime and cement	50	50
Pounds —		
Coal (mineral)	1,398,000	14,014,000
Potters' ware	6,500	16,540
Fire clay	688,000	688,000
Merchandise	100,000	197,000
Machinery	10,000	10,000
Corn	400	400
Sundries	177,000	150,000
Crockery	6,000	6,000
Number —		
Barrels (empty)		400
Lath	180,000	65,000
Posts	2,000	3,400
Shingles	75,000	
Railroad ties	700	700
Feet —		
Lumber	449,000	489,000
Timber	1,500	1,500
Cords —		
Wood	1,000	1,000

DAVID ATWATER, Collector.

